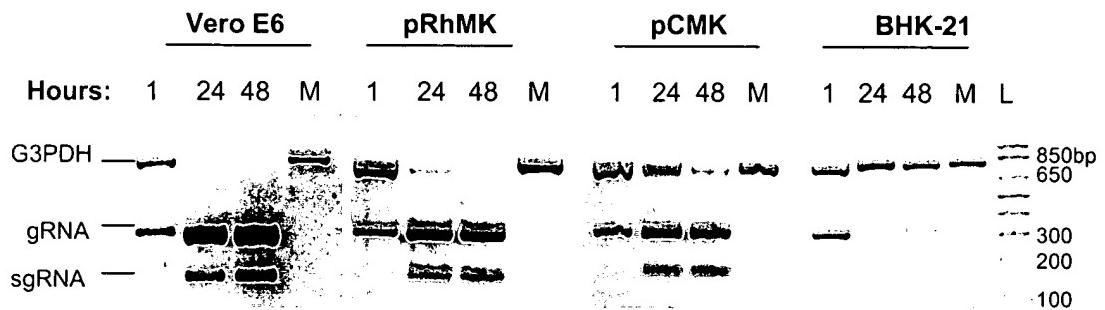


FIG. 1

A.



B.

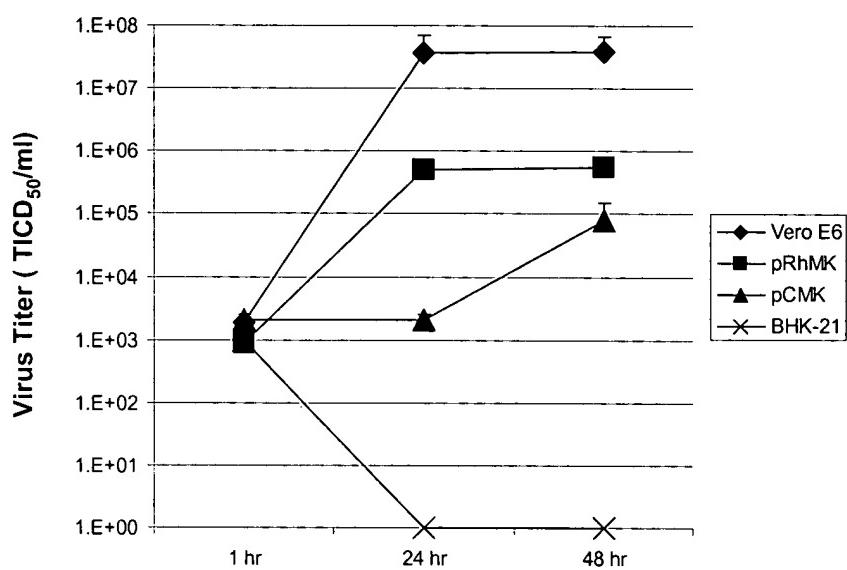


FIG. 2.

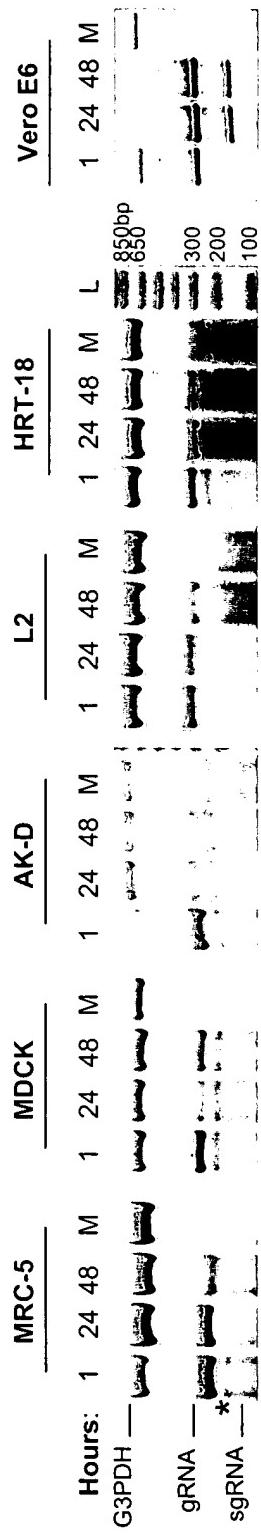
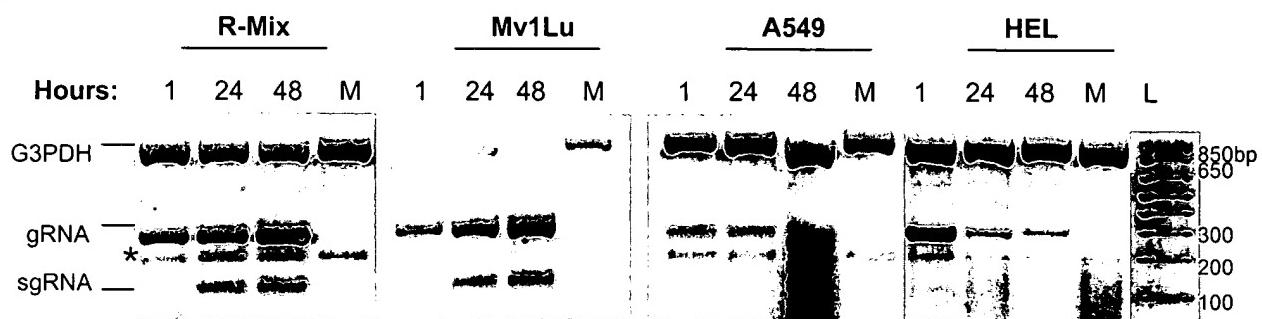


FIG. 3.

A.



B.

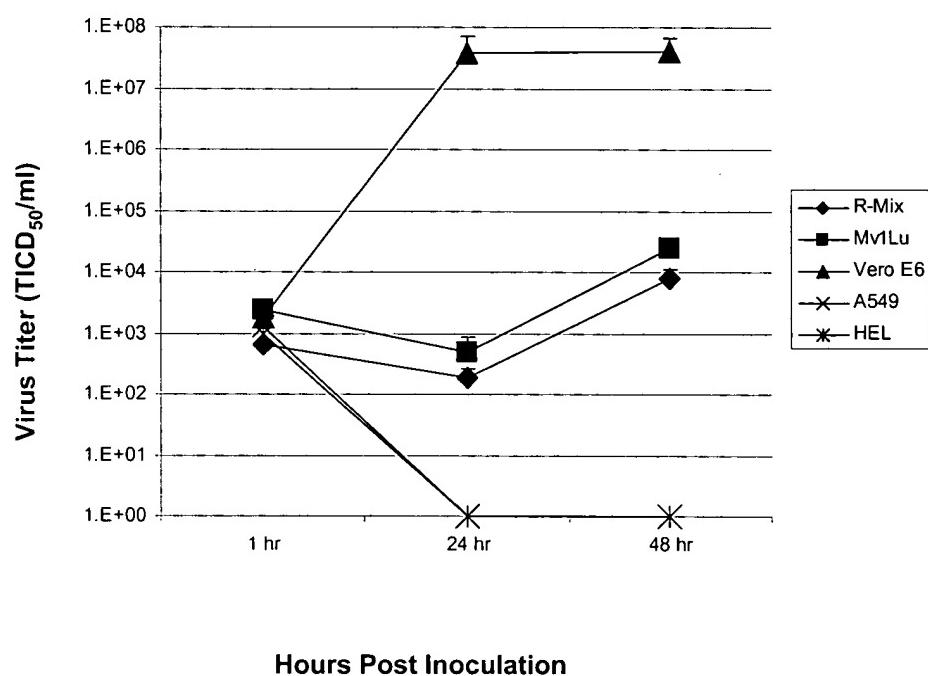
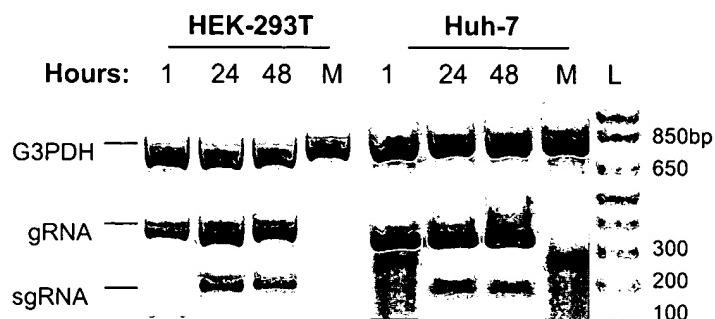


FIG. 4.

**A.**



**B.**

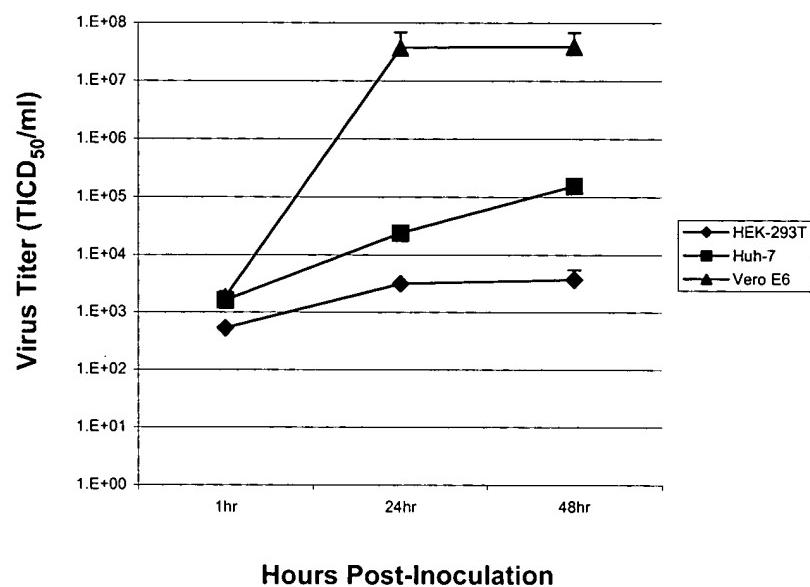
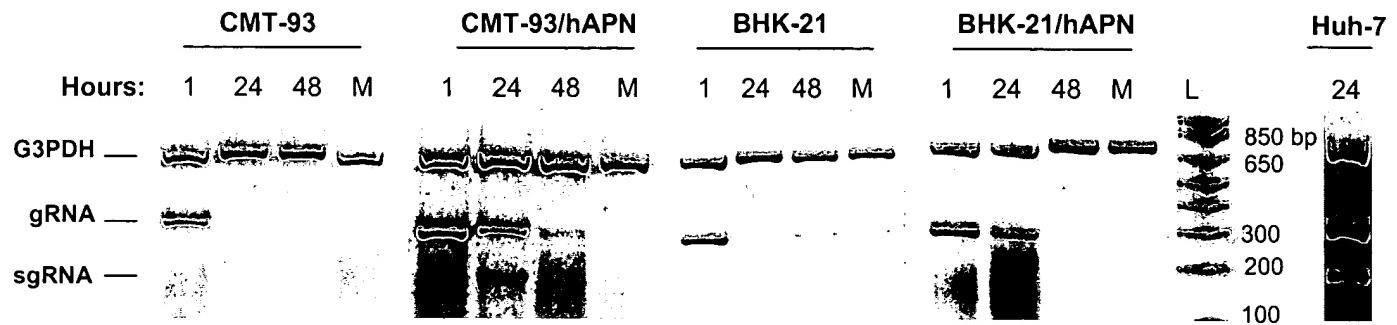


FIG. 5.

A.



B.

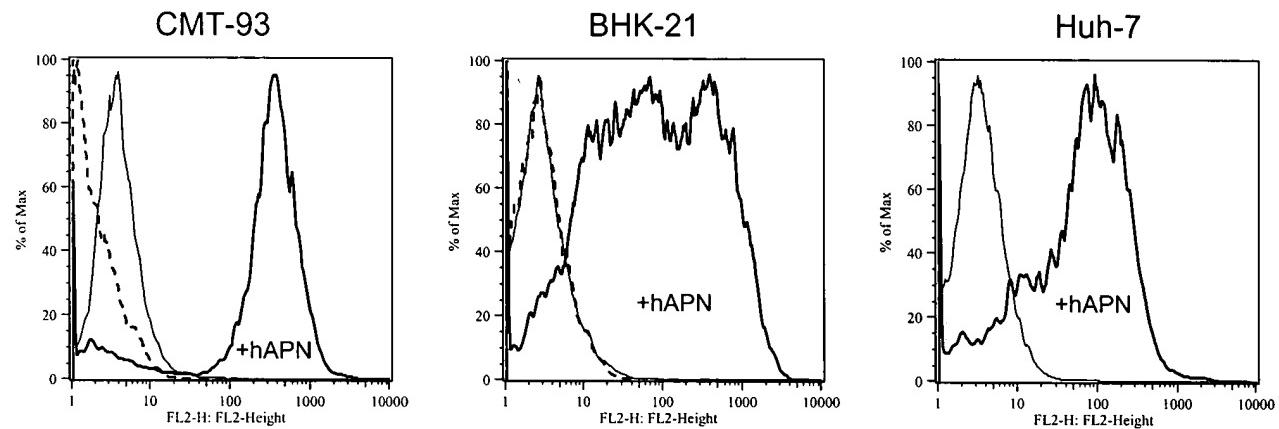


FIG. 6.

**FIGURE 7A**

1 atattaggtt tttacctacc caggaaaagc caaccaacct cgatctcttg tagatctgt  
61 ctctaaacga actttaaaat ctgtgttagt gtcgctcgcc tgcatgccta gtgcacccat  
121 gcagtataaa caataataaa tttactgtc gttgacaaga aacgagtaac tcgtccctct  
181 tctgcagact gcttacgggt taagatggag agccttggcc catcagcata cctaggttcc  
241 gtccgggtgt gaccggaaagg tgcgtccgtgt tgcaagtcgtat ttgggtgtcaa cgagaaaaaca  
301 cacgtccaac tcagttgcc tgcgtccgtgt tgtagagacg tgctagtgc tggtccggg  
361 gactctgtgg aagaggccct atcggaggca cgtgaacacc tcaaaaatgg cacttgtgg  
421 ctagtagagc tggaaaaagg cgtactgccc cagttgaac agccctatgt gttcattaaa  
481 cgttctgtat ccttaagcac caatcacggc cacaaggctcg ttgagctgtt tgcaaaaaatg  
541 gacggcattc agtacggctcg tagcggtata acactggggag tactcgtgcc acatgtggg  
601 gaaaccccaa ttgcataccg caatgttctt cttcgtaaga acggtaataa gggagccgg  
661 ggtcatagct atggcatcga tctaaagtct tatgacttag gtgacgagct tggactgtat  
721 cccattgaag attatgaaca aaactggAAC actaaggatcg gcaagtgggc actccgtgaa  
781 ctcactcggt agctcaatgg aggtgcagtc actcgctatg tcgacaacaa ttctgtggc  
841 ccagatgggt accctcttga ttgcataaaa gatttctcg cacgcgcggg caagtcaatg  
901 tgcactctt ccgaacaact tgattacatc gagtcgaaga gaggtgtcta ctgctggcgt  
961 gaccatgagc atgaaattgc ctggttcaact gaggcgctcg ataagagcta cgagcaccag  
1021 acacccttcg aaattaagag tgccaaagaaa ttggacactt tcaaaggggaa atgccccaaag  
1081 ttgtgtttc ctcttaactc aaaagtccaa gtcattcaac cacgtgttga aaagaaaaaaag  
1141 actgagggtt tcatggggcg tatacgctct gtgtaccctgt ttgcacatcc acaggaggtgt  
1201 aacaatatgc acttgcatac cttagatggaa tgtaatcatt gcgatgaagt ttcatggcag  
1261 acgtgcgact ttctgaaaagc cactgtgtaa cattgtggca ctgaaaatttgc agttattgaa  
1321 ggacctacta catgtgggtt cttacact aatgtgttag tgaaaatgccc atgtcctggc  
1381 tgtcaagacc cagagattgg acctgagcat agtggcgtgg attatcacaa ccactcaaac  
1441 attgaaaactc gactccgc当地 tggaggctgg actagatgtt ttggaggctg tggtttggc  
1501 tatgttggtt gctataataa gctgtccctac tgggttccctc gtgctagtgc tgatattggc  
1561 tcaggccata ctggcattac tggtgacaaat gtggagacct tgaatgagga ttccttggag  
1621 atactgagtc gtgaacgtgt taacattaac attgttggcg attttcattttaatttgaatgag  
1681 gttgcccata ttttggcatc tttctctgtc tctacaagtgc cactataaaag  
1741 agtcttgatt acaagtcttt caaaaccatt gttgagtcct gcggttaacta taaaagttacc  
1801 aaggggaaagg cctgtaaaagg tgcttggaaat atggacaaac agagatcagt tttacacca  
1861 ctgtgtgggt ttccctcaca ggctgtctgt gttatcagat caattttgc ggcacactt  
1921 gatgcagcaa accactcaat tccctgatttgc caaagagcag ctgtcaccat acttgatgg  
1981 atttctgaac agtcattacg tcttgcgc tccatggttt atacttcaga cctgctcacc  
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2101 ttgtctaattc ttttgggcac tactgttgaaa aacttcaggc ctatcttga atggattgg  
2161 gcgaaacttca gtgcaggagt tgaatttctc aaggatgctt gggagattct caaatttctc  
2221 attacaggtt ttttgacat cgtcaagggt caaatacagg ttgcttcaga taacatcaag  
2281 gattgtgtaa aatgtttcat tgatgttgc ttttggcatttgc tgcggatgttgc  
2341 gtcactatcg ctggcgcaaa gttgcgtatca ctcaacttag tgcggatgttgc  
2401 agcaaggggac tttaccgtca gtgtatacgt ggcaaggagc  
2461 cttaaaggcac caaaagaagt aacctttctt gaaggtgatt  
2521 tctgaggagg ttgttctcaa gaacgggtaa ctgcgac  
2581 ttccacaatgt gagctatcg tggcacacca gtcgtgtaa  
2641 attaaggaca aagaacaata ctgcgcatttgc tctcttgc  
2701 ttgcgttta aagggggtgc accaattaaa ggtgttgc  
2761 gaagttcaag gttacaagaa tgcgttgc  
2821 gtgcttaatg aaaagtgttc tgcgttgc  
2881 gcatgtgtt tagcaggagg tgcgttgc  
2941 aacatgggtt ttgtatcttgc tgcgttgc  
3001 ggtgaagaaa actttcatc  
3061 gaggacgtatc cagagtgtga  
3121 acagaggatc attatcaagg  
3181 gttgagggaa aagaagagga  
3241 ccagaaccatc aacccatc  
3301 actgacaatc ttgcattaa  
3361 atgggtgtt taaatgtgc  
3421 ctcaacaagg caaccatgg  
3481 ggccttta cagtaggggg  
3541 ctgcgtgtt ttggacctaa  
3601 tatgaaaaatt tcaattcaca

**FIGURE 7B**

3661 ggtgctaaac cacttcagtc tttacaagtgc tgcggtcaga cggttgcgtac acaggtttat  
3721 attgcagtca atgacaaaagc tctttatgc cagggtgtca tggattatct tgataacctg  
3781 aaggcttagag tggaaagcacc taaacaagag gagccaccaa acacagaaga ttccaaaact  
3841 gaggagaat ctgtcgtaa gaagcctgtc gatgtgaagc caaaaattaa ggcctgcatt  
3901 gatgagggtta ccacaacact ggaagaaaact aagtttctt ccaataagtt actcttggtt  
3961 gctgatatca atggtaagct ttaccatgt tctcagaaca tgcttagagg tgaagatag  
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4201 tatacacttgg aggaagctaa gactgctt aagaaatgca aatctgcattt ttagtacta  
4261 ccttcagaag caccataatgc taaggaagag attctaggaa ctgtatcctg gaatttgaga  
4321 gaaatgcttgc tcatacgctga agagacaaga aaattaatgc ctatatgcattt ggtatgtt  
4381 gccataatgg caaccatcca acgtaagtat aaaggaatta aaattcaaga gggcatcggt  
4441 gactatggtgc tccgattctt ctttatact agtaaagagc ctgtagcttctt tattattac  
4501 aagctgaact ctctaaatgca gccgctgtc acaatgcacaa ttgggttatgt gacacatgg  
4561 tttaatcttgc aagaggctgc gcgcgtatgc cgttctctt aagctcctgc cgtatgtca  
4621 gtatcatcac cagatgctgt tactacatat aatggataacc tcacttcgtc atcaaagaca  
4681 tctgaggagc actttgttga aacagttctt ttggctggctt cttacagaga ttggctctat  
4741 tcaggacagc gtacagagtt aggtgttgc ttcttaagc gtgggtgacaa aattgtgtac  
4801 cacactctgg agagccccgt cgagtttcat ctgcacgggt aggttctt acattgacaaa  
4861 ctaaagagtc tcttacccct gcggggagggtt aagactataa aagtgttccac aactgtggac  
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4981 ccaacataact tggatgggtgc tgatgttaca aaaattaaac ctcatgtaaa tcatgagggt  
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5281 caagaggctt attatacgac ccgtgtgtt gatgtgtca acttttgc actcataactc  
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6001 aaatttgcgtt atgatttaaa tcaaattgaca ggcttcacaa agccagctt acgagagcta  
6061 tctgtcacat tctcccaga cttgaatggc gatgtgttgc ctatttacta tagacactat  
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6181 caggctacaa ccaagacaaac gttcaaaacca aacacttggt gtttacgttgc tttttggagt  
6241 acaaaggccat tagataacttca aaatttattt gaaatgttgc cagtagaaga cacacaagg  
6301 atggacaatc ttgtgttgc aagtcaacaa cccacacttgc aagaatgtt gggaaatctt  
6361 accatcataca aggaagtcat agatgtgtac gtggaaacta ccgaatgtt aggcaatgtc  
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6481 atggctgtttt atgtggaaaaa cacaaggattt accatataa gtttacatgc gttttacta  
6541 gccttaggtt taaaaacaaat tgccactcat ggttgcgtt caattatag ttttttttt  
6601 agtaaaatttt tggcttatgt caaaccatcc ttggacaaag cagcaatttac aacatcaaatt  
6661 tgctgatataa gattacgcaca acgtgtgtttt aacaattataa tggcttatgtt gtttacattt  
6721 ttgttccaaat tggatgttt tactataaactt accaatttcaaa gaatttagac ttcaactac  
6781 acaactatttgc taaaaatgc tggatgtttt gtttacatgc gttttttttt  
6841 aattatgttgc agtcacccaa attttctaaa ttgttgcacaa tggcttatgtt gtttttttt  
6901 ttaagtattt gcttaggttgc tctaatctgtt gtaactgttgc ttggatgttgc ttttttttt  
6961 aattttgggtt ctcccttcttta ttgttgcacaa gtttacatgc tttttttttt  
7021 gttactacta tggatgttttgc tggatgtttt gtttacatgc gttttttttt  
7081 gactcccttgc attttatcc agtcttttttgc accattcagg tgacgatttc atcgatca  
7141 cttagacttgc caatttttagg tctggccgc gtttacatgc tttttttttt  
7201 aaatttctttt attatttagg tctttcagttt ataatgcacaa gtttctttttt  
7261 agtcatatc tcaatccatc ttggatgttttgc tttttttttt acaatggca

**FIGURE 7C**

7321 cccgtttctg caatggtag gatgtacatc ttctttgtt ctttctacta catatggaa  
7381 agctatgttc atatcatgga tggttgcacc tcttcgactt gcatgatgtg ctataagcgc  
7441 aatcggtcca cacgcgttga gtgtacaact attgttaatg gcatgaagag atctttctat  
7501 gtctatgaa atggaggccg tggcttctgc aagactcaca attggaattt tctcaattgt  
7561 gacacatttt gcactggtag tacattcatt agtgatgaag ttgctcgta ttgtcactc  
7621 cagttaaaaa gaccaatcaa ccctactgac cagtcatcgat atattgtga tagtgttgc  
7681 gtgaaaaatg gcgcgcttca cctctacttt gacaaggctg gtcaaaagac ctatgagaga  
7741 catccgctct cccattttgt caatttagac aatttgagag ctaacaacac taaagggttca  
7801 ctgccttata atgtcatagt tttgtatggc aagtccaaat ggcacgagtc tgcttctaag  
7861 tctgcttctg tgtactacag tcagctgatg tgccaaccta ttctgttgc tgaccaagtt  
7921 cttgtatcag acgttggaga tagtactgaa gtttccgtt agatgttga tgcttatgtc  
7981 gacaccttt cagcaacttt tagtgttccct atggaaaaac ttaaggcact tggtgctaca  
8041 gctcacagcg agttagcaaa gggtagtgc ttagatggt tcctttctac atcgtgtca  
8101 gctgccgac aagggttgt tgataccgt gttgacacaa aggatgttat tgaatgtctc  
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8281 gcaaggcata tcaatgcccc agtagcaaaa agtcacaaatg tttcactcat ctggaatgt  
8341 aaagactaca tgtctttatc tgaacagctg cgtaaacaaa ttcgtagtgc tgccaagaag  
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8461 actaaaaatct cactcaaggg tggtaagatt gtttagtactt gttttaaact tatgcttaag  
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8581 ttgtcaatcc atgatggta cacaatgaa atcatgggt tactgtatg tgggttgc acaaaggcat  
8641 gtcactcgta acatcatttc tggttcatac aaaaatgaca aaagctccc tggtagtgc  
8701 gcatggtta gccagcgtgg tggttcatac tggctggct taccgggtac tggctgaga  
8761 gctatcatta caagagagat gcattttca cctcgtgtt ttgtgtgt tggcaacatt  
8821 gcaatcaatg gtgacttctt cattgagtt agtggatttg ctacctctgc ttgcgttctt  
8881 tgctacacac cttccaaact taaggatgct atggcaaac ctgtgcata ttgttatgac  
8941 gctgctgagt gtacaatttt tatttctt agtggagctt gtcagacac tggtagtgc  
9001 actaatttgc tagagggttca acagtttccct aacacttaco tggagggttc tggtagagta  
9061 cttatggatg gttccatcat gtactgtaga catggtagat gcgaaaggc agaagtaggt  
9121 gtaacaactt ttgtatgtca tagatgggtt cttataataatg agcattacag agctctatca  
9181 atttgcctat ctaccagtgg tgcgatgaat ctcatagcta acatcttac tcccttgc  
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9481 ccagcttaca gctttctgc ttttgc ttttgc ttttgc ttttgc ttttgc ttttgc  
9541 ttcaccaatg atgtttcatt gataacaggc aatctatgtt ctgcatttgc ttttgc ttttgc  
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9721 gaggaggctg ctttgc ttttgc ttttgc ttttgc ttttgc ttttgc ttttgc  
9781 gagacactgt tgccacttac tactaccagc ttttgc ttttgc ttttgc ttttgc  
9841 tatttcagtg gagccttaga caactcaggc gtttgc ttttgc ttttgc ttttgc  
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9961 tcaatcactt ctgtgttct gtttgc ttttgc ttttgc ttttgc ttttgc ttttgc  
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10081 gatgacacag tatactgtcc aagacatgtc atttgc ttttgc ttttgc ttttgc  
10141 aactatgaa atctgtcat tcgcaatcc aaccatagct ttttgc ttttgc ttttgc  
10201 gttcaacttc gtgttattgg catttctatg cttttgc ttttgc ttttgc ttttgc  
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10381 aatcataccaa ttaaagggttca ttttgc ttttgc ttttgc ttttgc ttttgc  
10441 gattatgatt gcggtcttt ctttgc ttttgc ttttgc ttttgc ttttgc  
10501 gctggtaactg acttagaagg ttttgc ttttgc ttttgc ttttgc ttttgc  
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10621 atcaatggtg atagggtgtt ttttgc ttttgc ttttgc ttttgc ttttgc  
10681 gtggcaatga agtacaacta ttttgc ttttgc ttttgc ttttgc ttttgc  
10741 ctttctgctc aaacaggaat ttttgc ttttgc ttttgc ttttgc ttttgc  
10801 cagaatggta tgaatggtc ttttgc ttttgc ttttgc ttttgc ttttgc  
10861 ccatttgatg ttgttagaca ttttgc ttttgc ttttgc ttttgc ttttgc  
10921 gttaaaggca cttcatcattt gtttgc ttttgc ttttgc ttttgc ttttgc  
10981 caaagtacac agtggtaact ttttgc ttttgc ttttgc ttttgc ttttgc

**FIGURE 7D**

11041 cttggattata tggcaattgc tgcattgtct atgctgttgc ttaagcataa gcacgcattc  
11101 ttgtgcttgc ttctgttacc ttctcttgca acagttgtt actttatata ggtctacatg  
11161 cctgctagct gggtgatgcg tatcatgaca tggcttgaat tggctgacac tagctgtct  
11221 ggttataggc ttaaggatt tgttatgtat gttcagctt tagtttgc tattctcatg  
11281 acagctcgca ctgttatga tgatgtctt agacgtgtt ggacactgat gaatgtcatt  
11341 acactgttt acaaagtcta ctatggata gettagatc aagctatttc catgtggcc  
11401 ttagttattt ctgtAACCTC taactattct ggtgtcgta cgactatcat gtttttagct  
11461 agagctatag tgggtgtgt tggtgagtt tacccattgt tatttattac tggcaacacc  
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11581 ctttctgtt tactcaaccg ttacttcagg ctactctt gttttatga ctacttggc  
11641 tctacacaag aatttaggtt tatgaactcc caggggctt tgcctcctaa gagtagtatt  
11701 gatgtttca agcttaacat taagttgtt ggtattggag gttaaccatg tatcaagggtt  
11761 gctactgtac agtctaaaat gtctgacgtt aagtgcacat ctgtggact gctctcggtt  
11821 cttcaacaac ttagagttaga gtcattttt aaatttgtgg cacaatgtgt acaactccac  
11881 aatgatattc ttcttgcaaa agacacaact gaagcttgc agaagatgtt ttctctttt  
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12421 gattatgtt cctacaagaa cacttgcgtt ggttacaccc ttacatatgc atctgcactc  
12481 tggaaatcc agaaagggtt tgatgggtt agcaagatgtt ttcaacttag tggaaattaaac  
12541 atggacaattt caccatattt ggcttggctt ctattgtt cagctctaaag agccaaactca  
12601 gctgttaaac tacagaataa tgaactgtt ccaatgttac tacgacat gtcctgtcg  
12661 gctgttacca cacaacacgc ttgtactgtt gacaatgcac ttgcctacta taacaattcg  
12721 aaggggaggta gtttgttgc ggcattacta togaccacc aagatctcaa atgggctaga  
12781 ttccctaaga gtgttgttgc aggtacaattt tacacagaac tggaaaccacc ttgttagttt  
12841 gttacagaca caccatggc gctttaatgtt aaataactgtt actttcatcaa aggcttaaac  
12901 aacctaaata gaggtatggt gctgggcagt tttagtgcata cagtagtct tcaggctgg  
12961 aatgctacag aagtacctgc caattcaact gtgtttccct tctgtgttt tgcagtagac  
13021 cctgttaaaatg catataagga ttaccttagca agtggaggac aaccaatcac caactgtgt  
13081 aagatgttgc gtacacacac tggtacagga caggcaattt ctgttaacacc agaagctaac  
13141 atggaccaag agtccttgg tgggtcttca tgggtctgtt attgttagatg ccacattgac  
13201 catccaaatc ctaaaggatt ctgtgactt aaaggtaagt acgtccaaat acctaccact  
13261 tggcttaatg acccagtggg ttttacactt agaaacacacg tctgtaccgt tgcggaaatg  
13321 tggaaagggtt atggctgttag ttgtgacccaa ctccgcgaac cttgtatgca gtctgcggat  
13381 gcatcaacgt tttaaacgg gtttgcgggt taagtgcagc ccgttctaca ccgtgcggca  
13441 caggcacttag tactgtatgtc gtctacaggg ctttgcataat ttacaacgaa aaagttgtc  
13501 gtttgcataa gtttcttaaaa actaattgtt gtcgtttcca ggagaaggat gaggaaggca  
13561 atttatttata ctcttactttt gtgtttaaga ggcataactat gtcttaactac caacatgaag  
13621 agactatttta taacttggt aaagattgtc cagcgggtgc tggccatgac tttttcaagt  
13681 ttagagttaga tggtgacatg gtaccacata ttcacgtca gctgtactt aaatacaca  
13741 tggctgtt atgttactgtt ctacgttactt ttgtgagggtt taattgttgc acattaaag  
13801 aaataactcgt cacatataat tggctgtatg atgattttt caataagaag gattggatgt  
13861 acttcgttaga gaatcctgac atcttacgcg tttatgttca cttaggttag cgtgtacgccc  
13921 aatcattattt aaagactgtt caatttcgcg atgttactgtc tgatgcaggc attgttaggc  
13981 tactgacatt agataatcgt gatcttataat ggaactggta cgatttcgtt gatttcgtac  
14041 aagtagcacc aggctgcggaa gttccttattt tggattcata ttactcattt ctgtatgcccc  
14101 tcctcactttt gactaggggca ttggctgttgc agtcccataat ggatgtgtat ctcgc当地  
14161 cacttattaa gtgggattttt ctgaaatata ttttacggaa agagagactt tggctcttgc  
14221 accgttattt taaatattgg gaccagacat accatccaa ttgttataac tgggttggatg  
14281 atagggttat ctttcttgc gcaacttta atgtgttattt ttctactgtt tttccaccta  
14341 caagttttgg accacttagta agaaaaatata ttgttagatgg tggctttttt gttgtttca  
14401 ctggataccat ttttgcgttag ttggatgtcg tacataatca ggatgtaaac ttacatagct  
14461 cgcgtctcgtt ttcaaggaa ctttgcgttagt atgttgcgttca tccagctatg catgcagctt  
14521 ctggcaattt attgttagat aaacgcacta catgttttc agtagctgca ctaacaaaca  
14581 atgttgcattt tcaaactgttca aaacccggta attttataaa agactttt gactttgtc  
14641 tggcttaaagg ttttgcattt gaaaggatgtt ctgttgcactt aaaacacttc ttctttgtc  
14701 aggttgcataa cgcgtctcgtt atgttgcgttacttacttgc ttataatctg ccaacaaat

**FIGURE 7E**

FIGURE 7F

18481 gtgatacact gaaaggattg tcagacagag tcgtgttcgt ccttggcg catggcttg  
18541 agcttacatc aatgaagtac tttgtcaaga ttggacctga aagaacgtgt tgtctgtgt  
18601 acaaacgtgc aacttgctt tctacttcat cagatactta tgccctgtgg aatcattctg  
18661 tgggtttga ctatgtctat aacccttta tgattgtatc tcagcagtgg ggcttacgg  
18721 gtaaccttca gagtaaccat gaccaacatt gcaggtaca tgaaaatgca catgtggcta  
18781 gttgtatgc tatcatgact agatgttag cagtccatga gtgccttgc aagcgcgtt  
18841 attggctgt tgaataccct attataggag atgaactgag ggttaattct gcttcagaa  
18901 aagtacaaca catggttgtg aagtctgcat tgcttgcgt taagttcca gttcttcatg  
18961 acattggaaa tccaaaggct atcaagtgtg tgccctcaggc tgaagtagaa tggaagttt  
19021 acgatgtca gccatgttagt gacaaagctt aaaaaataga ggagctttc tattcttatg  
19081 ctacacatca cgataaattc actgatggt tttgtttgtt ttgaaattgt aacgttgatc  
19141 gttacccagc caatgcaatt gtgttaggt ttgacacaag agtctgtca aacttgaact  
19201 taccaggctg tcatgggtgt agttgtatc tgaataagca tgcattccac actccagctt  
19261 tcgataaaaag tgcattttact aatttaaaggc aattgcctt ctttactat tctgatagtc  
19321 cttgtgagtc tcatggcaaa caagtagtgtt cggatattga ttatgttcca ctcaaatctg  
19381 ctacgtgtat tacacgatgc aatttaggtg gtgtgtttt cagacaccat gcaaatacg  
19441 accgacagta ctggatgca tataatatga tgatttctgc tggatttagc ctatggattt  
19501 acaaacaatt tgatacttat aacctgtgg aatacattac caggttacag agtttagaaa  
19561 atgtggctta taatgttggt aataaaggac actttgcgtt acacgcccggc gaagcacctg  
19621 tttccatcat taataatgtc gtttacacaa agttagatgg tattgtatgtg gagatcttgg  
19681 aaaataagac aacacttcct gttaatgtt catttgcgtt ttggcttaag cgtaacatata  
19741 aaccagtgcc agagattaag atactcaata atttgggtgt tgatatcgct gctaatactg  
19801 taatctggga ctacaaaaga gaagccccag cacatgtatc tacaataggt gtctgcacaa  
19861 tgactgacat tgccaagaaa cttactgagat gtgtgtttt ttcacttact gtcttgggg  
19921 atggtagagt ggaaggacag gttagactt ttagaaacgc ccgtaatggt gtttaataaa  
19981 cagaagggttc agtcaaagggt ctaacaccc taaaggggacc agcacaagct akgcgtcaatg  
20041 gagtcacatt aattggagaa tcaaaaaaaaaa cactttttaa ctactttagg aaagtagacg  
20101 gcattattca acagttgcct gaaacccact ttactcagag cagagactta gaggatttt  
20161 agcccagatc acaaataggaa actgacttcc tggagctcgtc tatggatgaa ttcatacagc  
20221 gatataagct cgagggttat gccttcgaac acatcgttt tggagatttc agtcatggac  
20281 aacttggcggt tcttcattta atgataggct tagccaagcg ctcacaagat tcaccactta  
20341 aatttagagga ttttatccct atggacacca cagtggaaaaa ttacttcata acagatgcgc  
20401 aaacagggttc atcaaaaatgt gtgtgtctg tgattgtatc ttactttagt gactttgtcg  
20461 agataataaa gtcacaagat ttgtcagtga tttcaaaaagg ggtcaagggtt acaatttgc  
20521 atgctgaaat ttcatcatg ctttgggtgtt aggtatggaca tggtaaaacc ttctaccctt  
20581 aactacaagc aagtcaagcg tggcaaccag gtgttgcgtt gcctaacttgc tacaagatgc  
20641 aaagaatgtc tcttggaaaag tgtgacccctc agaattatgg tgaaaatgtc gttataccaa  
20701 aaggaataat gatgaatgtc gcaaagtata ctcaactgtt tcaatactta aatacactta  
20761 cttagctgtt accctacaac atgagagttt ttcactttgg tgctggctt gataaaggag  
20821 ttgcaccagg tacagctgtt ctcagacaat ggttgcacac tggcacacta cttgtcgatt  
20881 cagatcttaa tgacttcgtc tccgaccccg attctacttt aattggagac tggcaacac  
20941 tacataccgc taataatgg gacccattttt ttagcgatata gtatgaccctt aggaccaaac  
21001 atgtgacaaa agagaatgtc tctaaagaag ggtttttcac ttatctgtgt ggatttataa  
21061 agcaaaaactt accctgggtt ggttctatag ctgtaaagat aacagagcat tcttggaaatg  
21121 ctgacccctta caagcttgcgtt ggcattttt catgggtggac agttttgtt acaaataatgtaa  
21181 atgcatcatc atcggaaagca ttttttttgg gggctaaacta tcttggcaag cccggaaac  
21241 aaattgtatgg ctataccatg catgctaact acatttctg gaggaacaca aatcctatcc  
21301 atttgttcc ttatcactc tttgacatga gcaaaatttc tcttaaatttta agaggaactg  
21361 ctgtatgtc tcttaaggag aatcaaatac atgatatgtt ttattttctt ctggaaaaaaag  
21421 gtaggctt cattagagaa aacaacacag ttgtgggtt aagtgtatattt ttgttaaca  
21481 actaaacgaa catgttttattt ttcttattat ttcttactct cactagtggt agtgacccct  
21541 accgggtgcac cacttttgcgtt gatgttcaag ctccttactt cactoacat acttcattca  
21601 tgaggggggtt ttactatccct gatgaaattttt ttagatcaga cacttccat ttaactcagg  
21661 atttatttttccatccat tctaatttttca cagggtttca tactattat catacggtt  
21721 gcaaccctgtt cataccctttt aaggatggta ttatcttgc tgccacacagaa aatcaaata  
21781 ttgtccgtgg ttgggtttt ggttctatca tgaacaaacaa gtcacactcg gtgatttta  
21841 ttaacaatttca tactaatgtt gttatacgat catgtaaattt tgaattgtgt gacaaccctt  
21901 tcttgcgtt ttctaaacccat atgggtacac agacacatac tatgtatattc gataatgc  
21961 ttaattgcac ttgcgttac atatctgtt cttttcgct tgatgtttca gaaaagtcag  
22021 gtaattttaa acacttacga gagttttgtt taaaaataaa agatgggtttt ctctatgtt  
22081 ataagggtca tcaacccata gatgtatcc ttgtatctacc ttctgggtttt aacactttga  
22141 aacccatccat taaatgttgcctt ctgggttta acattacaaa ttttagagcc attcttacag

FIGURE 7G

22201 ccttttcacc tgctcaagac atttggggca cgtcagctgc agcctatTTT gttggctatt  
22261 taaagccaac tacatTTATg ctcaagtatg atgaaaatgg tacaatcaca gatgctgtt  
22321 attgttctca aaatccactt gctgaactca aatgtctgt taagagctt gagattgaca  
22381 aaggaaTTTA ccagacCTC aattTCAGGG ttgtccCTC aggagatgtt gtgagattCC  
22441 ctaatattac aaacttGTgt cctttggag aggttttaa tgctactaaa ttcccTTCTG  
22501 tctatgcATg ggagagaaaa aaaattCTA attgtgttgc tgattactt gtgctCTACA  
22561 actcaacATT ttttcaACC ttaagtgtc atggcTTTC tgccactaAG ttGAATGATC  
22621 ttgcttCTC caatgtCTat gcagattCTT ttgtagtcaa gggagatgt gtaagacaaa  
22681 tagGCCcagg acaaactGGT gttattgtc attataatta taaattGCCa gatgatttCA  
22741 tgggttGTgt ccttgCTTGG aatactAGGA acattgtGC tacttCACT ggtattATA  
22801 attataAAAt taggtatCTT agacatGGCA agcttagGCC ctttgagaga gacatATCTA  
22861 atgtGCCttt ctccccgtat ggcaAAACttt GcACCCCACc tgctCTtaat ttttattGGC  
22921 cattaaATGA ttatggTTT tacaccACTA ctggcATTgg CTACCAACCT tacagAGTTG  
22981 tagtacttC ttttgaACTT ttaaatGCAC CGGCCACGGT ttgtggACCA aaattatCCA  
23041 ctgacCTTAT taagaACCAG tGTGTCAATT ttaattttAA tggactCACT ggtactGGTG  
23101 tGTTAactCC ttcttcaAAAG agatttCAAC catttcaACA atttggCCGT gatgtttCTG  
23161 atttcaCTGA ttccGTTGCA gatCCTAAAA catCTGAAAT attagACATT tcacCTTGT  
23221 cttttggggg tGtaagtGta attacacCTG gaacAAATGc ttcatCTGAA gttgtGTTC  
23281 tatacAAGA tGTTAactGC ACTGATGTT ctacAGCAAT tcatGCAGAT caactCACAC  
23341 cAGCTTGGCG catatATTCT ACTGGAAACA atgtattCCA gactcaAGCA ggctgtCTTA  
23401 taggAGCTGA gcatGTCGAC acttCTTATG agtgcGACAT tcctattGGA gctggCATT  
23461 gTGCTAGTTA ccatacAGTT tctttattAC gttagtACTAG cAAAAAAATCT attgtggCtt  
23521 atactatGTC tttAGGTGCT gatAGTtCA tTGCTTACTC taataACACC attgtCTATAC  
23581 ctactaACTT tcaatTTAGC attactACAG aAGTAATGCC tGTTTCTATG gctAAAACCT  
23641 ccgtAGATTG taatATGTAC atCTGCGGAG attCTACTGA atgtGCTAAT ttGCTTCTCC  
23701 aatATGGTAG ctTTTGCACA caactAAATC gtGCACTCTC aggtattGCT gctGAACAGG  
23761 atcGCAACAC ACgtGAAGTG tTCGCTCAAG tCAAACAAAT gtacAAAACC ccaactTTGA  
23821 aatATTTGG tGGTTTAAAT ttttcaAAAAA tattACCTGA CCCTCTAAAG ccaactAAAG  
23881 ggtCTTTAT tgaggACTTg ctCTTTAATA aggtGACACT cgctGATGCT ggCTTCACTGA  
23941 agcaatATGG cgaatGCCtA ggtGATATA atGCTAGAGA tCTCATTTGT gCGCAGAAgT  
24001 tcaatGGACT tacAGTGTG tCACCTCTG tcaACTGATGA tatGATTGCT gcCTACACTG  
24061 ctGCTCTAGT tagtGGTACT GCCACTGCTG gatGGACATT tGGTGTCTGGC gctGCTCTC  
24121 aaataCCttt tgCTATGCAA atGGCATATA ggttCAATGG CATTGGAGTT accAAAATG  
24181 ttCTCTATGA gaACCAAAAAA caaATGCCA accAAATTAA caAGGCGATT agtCAAATTC  
24241 aagaatCAct tacaACAAACA tcaACTGCA tGGGCAAGGT gcaAGACGTT gtaAccAGA  
24301 atGCTCAAGC attAAACACa CTTGTTAAAC aacttagCTC taattttGGT gcaAttTCAA  
24361 gtgtGCTAAA tgatATCCTT tcGCGACTTG atAAAGTCGA ggcggAGGT caAAATTGACA  
24421 ggttaattAC aggCAGACTT caaAGCCTC aaACCTATGT aacacaACAA otaatCAGGG  
24481 ctGCTGAAAT cAGGGCTTCT gctaATCTG CTGCTACTAA aatGtCTGAG tGtGTTCTG  
24541 gacaatCAA AAGAGTTGAC ttttGTTGAA aggGCTACCA CCTTATGTCC ttcccACAAAG  
24601 cAGCCCCGCA tGGTGTGTC ttCCtACATG tCACGTATGT gCCATCCCAG gagAGGAACt  
24661 tcaccACAGC gCCAGCAATT tGtCATGAAG gOAAAGCATA CTTCCoCTCGT gaaggGTtT  
24721 ttGtGTTAA tGGCCTTCT tGGTTTATA cacAGAGGAA CTTCTTTCT ccACAAATAA  
24781 ttactACAGA caatacATG tGtCTCAGGAA attGTGATGT CGTTATTGGC atCATTAAACA  
24841 acacAGTTA tgatCCTCTG caACCTGAGC tGACTCATT caaAGAAAGAG ctggacaAGT  
24901 acttCAAAAAA tcaTACATCA ccAGATTTG atCTTGGCA CATTTCAGGC attAACGCTT  
24961 ctGtGtCAA cATTCAAAAAA gaaATTGACC gCCTCAATGA ggtCGCTAA aatttAAATG  
25021 aatCActCAT tgACCTCAA gaATTGGAA aatATGAGCA atATTTAAAT tggCCTTGGT  
25081 atGTTTGGCT CGGCTTCAATT gCTGGACTAA tGtCCATCGT catGGTTACA atCTTGTCTT  
25141 gttGcatGAC tagTTGTTGc agttGCTCA agggTGCATG CTCTTGTGGT tCTTGTGCA  
25201 agtttGATGA ggatGACTCT gAgCCAGTtC tcaAGGGTGT caAAATTACAT tacACATAAA  
25261 cgaacttATG gattGTTTA tgAGATTTT TACTCTTGGA tcaATTACTG cacAGCCAGT  
25321 AAAAATTGAC aatGCTTCTC CTGCAAGTAC tGTTCATGCT acAGCAACGA taccGCTACA  
25381 agCCTCACTC CTTTCCGGAT ggCTTGTtAT tggCGTTGCA ttTCTTGTGtG ttttCAGAG  
25441 cgCTACCAA AAtAATTGCGC tcaATAAAG atGGCAGCTA gCCCTTATA AGGGCTTCCA  
25501 gttCATTGc aatttACTGC tgCTATTGT taccatCTAT tcACATCTT tgCTTGTGCG  
25561 tGcAGGTATG gaggCGCAAT ttttGtACCT CTATGCCTG atATTTTC tacaATGCA  
25621 caacGcatGT agaATTATTA tgAGATGTG gtttGTTGG aagtGCAAAT ccaAGAACCC  
25681 attacttAT gatGCCAACT acTTGTTG ctggCACACA cataACTATG actACTGTAT  
25741 accatATAAC agtGTCACAG atacaATTGT CGTACTGAA ggtGACGGCA tttcaACAC  
25801 AAAACTCAA AAGAGACTACc AAATTGGTGG ttattCTGAG gatAGGCACT caggGTtAA  
25861 agactatGTC gttGtACATG gCTATTtAC cGAAGTTAC taccAGCTG agtCTACACa

**FIGURE 7H**

25921 aattactaca gacactggta ttgaaaatgc tacattcttc atctttaaca agcttgtaa  
25981 agaccacccg aatgtcaaa tacacacaat cgacggctct tcaggagtt ctaatccaga  
26041 aatggatcca atttatgatg agccgacgac gactactagc gtgccttgc aagcacaaga  
26101 aagttagtac gaacttatgt actcattcg ttcggaaagaa acaggtacgt taatagttaa  
26161 tagcgactt cttttcttg ctttcgttgt attcttgcata gtcacactag ccatccttac  
26221 tgcgttcga ttgtgtcggt actgctgcaa tattgttaac gtgagtttag taaaaccaac  
26281 ggttacgtc tactcgctg taaaaaatct gaactcttct gaaggagtt ctgatctt  
26341 ggtctaaacg aactaactat tattattatt ctgtttggaa cttaacatt gttatcatg  
26401 gcagacaacg gtactattac cgttgaggag cttaaacaac tccttgaaca atggaaccta  
26461 gtaataggtt tcctattcct agcctggatt atgttactac aatttgccta ttctaatcg  
26521 aacaggtttt tgtacataat aaagcttgc ttccctctggc tcttgtggcc agtaacactt  
26581 gcttgggg tgcttgcgtc tgtctacaga attaattggg tgactggcg gattgcatt  
26641 gcaatggcgtt gtattgtagg cttgatgtgg cttagctact tcgttgcctc cttcaggctg  
26701 tttgtctcgta cccgctcaat gtggtcattc aacccagaaa caaacattct tctcaatgtg  
26761 cctctccggg ggacaattgt gaccagacg ctcatggaaa gtgaacttgt cattgggtct  
26821 gtgatcattc gtggtcattt gcbaatggcc ggacaccccc tagggcgctg tgacattaag  
26881 gacgtgccaa aagagatcac tgggctaca tcacgaacgc tttcttatta caaatttagga  
26941 gcgtcgacg gtgttaggcac tgattcagggt ttgtctgcata acaaccgcata ccgtattgg  
27001 aactataaat taaatacaga ccacgcgggt acaacgcata atattgtttt gctagtagc  
27061 taagtgcaca cagatgttc atcttgcata cttccagggtt acaatagcag agatattgt  
27121 tatcattatg aggacttca ggattgttat ttggaatattt gacgttataa taagtcaat  
27181 agtgagacaa ttatthaagc ctctaactaa gaagaattat tgggatgttag atgatgaaga  
27241 acctatggag ttagattatc cataaaacga acatggaaaat tattctttc ctgacatc  
27301 ttgtatttac atcttgcag cstatatact atcaggagtg tgtagaggt acgactgtac  
27361 tactaaaaga accttgcaca tcaggaacat acggggcaat ttccacattt caccctt  
27421 ctgacaataa atttgcacta acttgcacta gcacacactt tgctttgc tigtctgacg  
27481 gtactcgaca tacctatcg ctgcgtgcaaa gatcagttt accaaaactt ttcatcagac  
27541 aagaggaggt tcaacaagag ctctactc cacttttctt cattgttgc gctctagtat  
27601 ttttaataact ttgtttcacc attaagagaa agacagaatg aatgagctca cttaattga  
27661 cttctatttgc tgcttttttag ctttctgtctt attccttgc ttaataatgc ttattatatt  
27721 ttggtttca ctgcggaaatcc agatctaga agaaccttgc accaaagtct aaacgaacat  
27781 gaaacttctc attgtttga ctgttatttgc tctatgcagt tgcatatgc ctgttagtaca  
27841 ggcgtgtca tctaataaaac ctcatgtgc tgaagatcct tgaaggatc aacactaggg  
27901 gtaataactta tagactgct tggctttgt ctctaggaaa gttttaccc tttcatagat  
27961 ggcacactat ggttcaaaca tgcacaccta atgttactat caactgtcaa gatccagctg  
28021 gtggtgcgct tatacttgc tgggttacc ttcatgaagg tcaccaaact gtcatttt  
28081 gagacgtact tgggtttta aataaacgaa caaattaaaaa tgcgtatc tggacccaa  
28141 tcaaaccac gtagtgcggcc cgcattaca tttggtgac ccacagattc aactgacaat  
28201 aaccagaatg gaggacgca tggggcaagg caaaaacagc gcccacccca aggttaccc  
28261 aataataactg cgtcttgc tcaactcgatc actcagcatg gcaaggagga acttagattc  
28321 cctcgaggcc agggcgttcc aatcaacacc aatagtggc tcatgtacca aattggctac  
28381 taccgaagag ctacccgacg agttcgttgt ggtgacggca aatgaaaga gctcagcccc  
28441 agatggact tctattacct tgcacactgag ggacccctga atacacccaa cggcgctaaac  
28501 aaagaaggca tcgtatgggt caatgtgc accgtgcata aacttctca agaccacatt  
28561 ggcaccccgca atcctataaa aggggaagc agaggcgac gtcacgc tttctcgctcc  
28621 ttggccaaag gcttctacgc ttcaagaat tcaactctgc gcaactgttag gggaaattct  
28681 tcatcactgta gtcgggtaa aggtggtaa actgcctcgc cgttattgt gctagacaga  
28741 cctgctcgaa ttggtagcggt aatgttctgtt aaaggccaaac aacaacaagg ccaaactgtc  
28801 ttgaaccacg ttgagagcaaa ggcattcaaaa aagcctcgcc aaaaacgtac tggccaaaaaa  
28861 actaagaaat ctgtgtctga atttgggaga cgtggtccag aacaaaccca agggaaatttc  
28921 cagtacaacg tcactcaagc acaaggaact gattacaaac attggccgc aattgcacaaa  
28981 ggggaccaag acctaattcg attctttga atgtcacgc ttggcatgga agtcacaccc  
29041 tttgctccaa gtgcctctgc tcatggagcc attaaattgg atgacaaaaga tccacaattc  
29101 tcgggaacat ggctgactta gaacaagcac attgacgcatt acaaaacatt cccaccaaca  
29161 aaagacaacg tcataactgct gaaaaagact gatgaagctc agccttgcg gcagagacaa  
29221 gagcctaaaa aggacaaaaaa tcttcttcct gggctgaca tggatgattt ctccagacaa  
29281 aagaagcgc ccactgtgac agcttctgc gattcaactc aggcataaac actcatgatg  
29341 cttcaaaattt ccatgagtgg tattgtaaacg ttttcgcaat tccgttacg atacatagtc  
29401 accacacaacg gcagatgggc tctcgtaact aaacagcaca agtaggtta gttacttta  
29461 tactttgtg cagaatgaat atcaatgtgt aacattaggg aggactgaa agagccacca  
29521 atctcacata gcaatcttgc gggatcattt gggatcgtac cgagggtaca gtgaaataatg  
29581 catttcattc gaggccacgc

**FIGURE 7I**

29641 ctgcctatat ggaagagccc taatgtgtaa aattaatttt agtagtgcta tccccatgtg  
29701 attttaatag cttcttagga gaatgac

## FIGURE 8 A

## FIGURE 8 B

3061 gaggacgtatcagagtgtgaaagaagaattgtgaaaacctgtgaaca tgagtacgg  
3121 acagaggatgattatcaaggctccctctggaatttgggtgcctcagtcgaaacagtgcg  
3181 gttgaggaagaagaagaggagaagactggctgtatgatactactgagcaatcagagatttag  
3241 ccagaaccagaacctacacc tgaagaaccca gtaatcagtttactggta ttaaaaactt  
3301 actgacaatgttgcattaaatgttgcacatcgtaaggaggcacaagg tgcataatcc  
3361 atggtgattttaatgctgtacacatcgaaacatcggtgggtgtgcagggcag  
3421 ctcaacaaggcaacaaatggtgccatgcaaaaggagatgtatgattacataagctaaat  
3481 ggccccttta cagtaggagggtcttgttgccttctggacataatctgc taagaagtgt  
3541 ctgcatgttggacccataatgcataatgcgttggaggacatccagctctaaggcagca  
3601 tatgaaaatttcaattcaca ggacatctatcgttgcaccatgttgcagcaggcatattt  
3661 ggtgctaaacactcgtttacaatgttgctgcaga cgggtcgacacagggttat  
3721 attgcagtcatagacaaagcttctttagtagcagggtgtca tggattatctgtatcacctg  
3781 aaggcttagatggaaagcaccataacaagagagggcaccacacacagaagaatccaaaact  
3841 gaggagaaatctgcgtaca gaaggctgtcgtatgttgaaacggcatttgcatt  
3901 gatgaggtaaccacaacactggaagaaactaagtttcttccaataatgttactcttgtt  
3961 gctgatatactatgttacatgtatcgtatgttgcataacatgttagggatgatgt  
4021 tctttcttgagaaggatgtcaccatcatgtatgttgcactatgttgcatt  
4081 acttgttgcataatcccccaaaaaggctggggactactgagatgtctcaagagat  
4141 ttgaaagaaatggccatgttgatgttgcataatgttaccacgttaccctggacaaggatgtgt  
4201 tataactttaggaaatgttgcataatgttgcataatgttaccatgttgcattttatgtacta  
4261 ccttcagaagcaccatgtcaatgttgcataatgttgcataatgttgcattttatgtacta  
4321 gaaatgttgcataatgtcaatgttgcataatgttgcataatgttgcattttatgtacta  
4381 gccataatggcaaccatgtcaatgttgcataatgttgcataatgttgcattttatgtacta  
4441 gactatggttccgattttcttgcatttactatgttgcataatgttgcattttatgtacta  
4501 aagctgaactctcaatgtggccgtgtcacaatgccaattttgttgcataatgttgcatt  
4561 tttatcttgaagaggctgcggctgtatgcgttctttaaacttgcgttgcgtatgt  
4621 gtatcatcacatgtatgttgcataatgttgcataatgttgcattttatgtacta  
4681 tctgaggatgttgcataatgttgcataatgttgcataatgttgcattttatgtacta  
4741 tcaggacatgttgcataatgttgcataatgttgcataatgttgcattttatgtacta  
4801 cacactcttggagggccgtcgatgttcatgttgcgttgcgttgcattttatgtacta  
4861 ctaaaagatgttgcgttgcgttgcattttatgtacta  
4921 aacactaatactccacacatgttgcataatgttgcataatgttgcattttatgtacta  
4981 ccaacataacttggatgttgcataatgttgcataatgttgcattttatgtacta  
5041 aagacttcttgcataatgttgcataatgttgcataatgttgcattttatgtacta  
5101 catactcttgcataatgttgcataatgttgcataatgttgcattttatgtacta  
5161 tggaaatttcctcaatgttgcataatgttgcataatgttgcattttatgtacta  
5221 ttgtctatgttttattatgttgcataatgttgcataatgttgcattttatgtacta  
5281 caagaggcttattatgttgcataatgttgcataatgttgcattttatgtacta  
5341 gcttacatgttgcataatgttgcataatgttgcattttatgtacta  
5401 ctacagcatgttgcataatgttgcataatgttgcattttatgtacta  
5461 ggtcagaaaaatctactatgttgcataatgttgcataatgttgcattttatgtacta  
5521 tatgataatcttgcataatgttgcataatgttgcattttatgtacta  
5581 tatctgtatgttgcataatgttgcataatgttgcattttatgtacta  
5641 ttacagcatgttgcataatgttgcataatgttgcattttatgtacta  
5701 tacactcataatgttgcataatgttgcattttatgtacta  
5761 atgtcagatgttgcataatgttgcattttatgtacta  
5821 accatcaagctgttgcataatgttgcattttatgtacta  
5881 ttggatgggttattatgttgcataatgttgcattttatgtacta  
5941 ccaactcaacatgttgcataatgttgcattttatgtacta  
6001 aaatttgcataatgttgcataatgttgcattttatgtacta  
6061 tctgtcataatgttgcataatgttgcattttatgtacta  
6121 tcagcgatgttgcataatgttgcattttatgtacta

### FIGURE 8 C

6181 caggctacaa ccaagacaac gtc当地acca aacacttgtt gtttacgtt tctttggagt  
6241 acaaagccag tagatacttc aaattcattt gaagttctgg cagtagaaga cacacaagg  
6301 atggacaatc ttgc当地gtga aagtc当地acca cccacccttg aagaagtagt ggaaaatct  
6361 accatacaga aggaagtc当地 agagtgac gtgaaaacta cc当地agttgt aggcaatgtc  
6421 atacttaac catcagatga aggtgtt当地aa gtaacacaag agttaggtca tgaggatctt  
6481 atggctgctt atgtggaaa cacaaggcatt accattaaga aacctaatacga gctt当地acta  
6541 gc当地taggtt taaaaacaat tgccactcat ggtatgtctg caattaatag tgc当地tgg  
6601 agtaaaaattt tggctt当地gt caaaccattt ttaggacaag cagcaattac aacatcaat  
6661 tgc当地taaga gattagcaca acgtgtgtt当地 aacaattata tgc当地tatgt gtttacatta  
6721 ttgttccaat tgigtactt tactaaaatg accaattcttta gaatttagac tt当地actt  
6781 acaactattt ct当地aaatag tgtaaagagt gttt当地aaat tatgtttggta tgccggcatt  
6841 aatttgc当地 ageticccaa attttctt当地a ttgttccacaa tc当地tatgt gctattgtt当地  
6901 ttaagtattt gcttaggtt当地 tcttaatcttta gtaactgt gctt当地gtt当地 actctt当地  
6961 aatttgggtt ct当地cttta ttgttaatggc gttt当地aaat tgc当地ttaa tt当地cttaac  
7021 gtttactacta tggattctg tgaagggtctt ttccctt当地ca gc当地ttt当地 aagtgggatta  
7081 gactccctg attt当地tcc agctttgaa accattcagg tgacgattt当地 atc当地tacaag  
7141 ct当地acttga caattttagg tt当地ggc当地 gatgtgggtt当地 tggcatatata tt当地tccaca  
7201 aaattt当地ttt attt当地tagg tctt当地cagct ataattgcagg tt当地ctt当地 ct当地ttt当地  
7261 agtcatcttca tc当地caatttctg tggctcatg tt当地t当地tca tt当地t当地t当地t当地  
7321 cccg当地tctg caatggtagt gatgtacatc tt当地t当地t当地t当地 ct当地tacta cataatggaa  
7381 agtcatgtt当地 atatcatgga tt当地t当地t当地t当地t当地t当地t当地t当地t当地  
7441 aatcgccca cacgctt当地t当地t当地t当地t当地t当地t当地t当地t当地t当地  
7501 gtctatgcaat atggaggccg tt当地t当地t当地t当地t当地t当地t当地t当地t当地  
7561 gacacattttt gacitggtag tacattt当地t当地t当地t当地t当地t当地t当地t当地  
7621 cagttt当地aaa gaccaatcaa cc当地actgac cagtc当地t当地t当地t当地t当地  
7681 gt当地aaaatg ggc当地t当地t当地t当地t当地t当地t当地t当地t当地  
7741 catccgetctt cccattt当地t当地t当地t当地t当地t当地t当地t当地t当地  
7801 ct当地ctt当地t当地t当地t当地t当地t当地t当地t当地t当地t当地  
7861 tctt当地t当地t当地t当地t当地t当地t当地t当地t当地t当地  
7921 tt当地t当地t当地t当地t当地t当地t当地t当地t当地t当地  
7981 gacacctttt cagcaactt当地t当地t当地t当地t当地t当地t当地t当地  
8041 gtc当地acgca agttagcaaa ggggttagctt tt当地t当地t当地t当地t当地t当地  
8101 gtc当地ccgac aagggtt当地t当地t当地t当地t当地t当地t当地t当地  
8161 aaactt当地c acatctt当地t当地t当地t当地t当地t当地t当地t当地  
8221 acctt当地ataata aggtt当地aaa catgacgccc agagatctt当地t当地t当地t当地  
8281 gcaaggccca tcaatgccc agtagcaaaa agtccacaatg tt当地t当地t当地t当地  
8341 aaagactaca tgc当地t当地t当地t当地t当地t当地t当地t当地  
8401 aacaacatc当地t当地t当地t当地t当地t当地t当地t当地  
8461 actaaaatctt cactcaaggg tt当地t当地t当地t当地t当地t当地t当地t当地  
8521 gccacattt当地t当地t当地t当地t当地t当地t当地t当地t当地  
8581 tt当地t当地t当地t当地t当地t当地t当地t当地t当地  
8641 gtc当地actt当地t当地t当地t当地t当地t当地t当地t当地  
8701 gcatgggtaa gccaggctt当地t当地t当地t当地t当地t当地t当地t当地  
8761 gctatc当地t当地t当地t当地t当地t当地t当地t当地t当地  
8821 gcaatcaatg gt当地actt当地t当地t当地t当地t当地t当地t当地t当地  
8881 tgc当地t当地t当地t当地t当地t当地t当地t当地t当地  
8941 gtc当地t当地t当地t当地t当地t当地t当地t当地t当地  
9001 actaatttgc当地t当地t当地t当地t当地t当地t当地t当地t当地  
9061 tt当地t当地t当地t当地t当地t当地t当地t当地t当地  
9121 gtaacaactt tt当地t当地t当地t当地t当地t当地t当地t当地  
9181 atttgc当地t当地t当地t当地t当地t当地t当地t当地t当地  
9241 ggaggttt当地t当地t当地t当地t当地t当地t当地t当地t当地

## FIGURE 8 D

### FIGURE 8 E

12421 gattatggta cctacaagaa cacttgtat ggtacacacct ttacatatgc atctgcactc  
12481 tggaaatcc agcaagttgt tgatcggtt agcaagattt tcaacttag taaaatttac  
12541 atggacaattt caccaattt ggcttggctt citattgtt cagctctaa agccaactca  
12601 gctgttaaac tacagaataa tgaactgagt ccagtagcac tacgacagat gtccgtgcg  
12661 gctggtacca cacaacacgc ttgtactgtat gacaatgcac ttgcctacta taacaattcg  
12721 aagggaggta ggtttgtctt ggcattacta tcagaccacc aagatctaa atgggctaga  
12781 ttccctaaga gtgttgttac aggtacaatt tacacagaac tggaccacc ttgttaggtt  
12841 gttacagaca caccaaaagg gcctaaatgtt aaatacttgtt acttcataa aggcttaaac  
12901 aacctaataa gaggtatggt gctggcagt tttagctgtt cagtagtctt tcaggcttgg  
12961 aatgtctacag aagtaccgtt caattcaact gtgtttccct tctgtgttt tgcatgtac  
13021 cctgttaaaag catataagga ttacactgtca agtggaggac aaccaatcac caactgttg  
13081 aagatgttgtt gtacacacac ttgtacagga caggcaatta ctgtacacc agaagctaac  
13141 atggaccaag agtcccttgg tggtgcttca ttgtgttgtt attttagatg ccacatttgac  
13201 catccaaatc ctaaaggattt ctgtgttca aaaggtaagt acgtccaaat acctaccact  
13261 tttgtgttccatg accccagggtt ttttacactt agaaacacag tctgttccgtt ctgcggaaatg  
13321 tggaaagggtt atggctgttag ttgtgaccaaa ctccgcgaac ctttgatgtca gtctgcggat  
13381 gcatcaacgt tttaaacgg gtttgcgggtt taagtgcacg cctgttaca ccgtgcggca  
13441 caggcaactt tactgtgtc gtctacagggtt tttagtgcataa acgtttgtc  
13501 gttttgc当地 gtttgc当地 actaattgtt gtcgttccca ggagaaggat gggaggca  
13561 atttatttgc当地 ctcttactt ttgtgttgc当地 ggcataactt gtcgttactt caacatgt  
13621 agactatttta taacttgggtt aaaggatgtc cagcggttgc ttgttgc当地 ttgttcaactt  
13681 tttagtgc当地 tggtgacatg gtaccacata ttttacgttca ggttcaactt aaatactt  
13741 tggctgttccatg agtctatgtt ctacgttccatg ttgttgc当地 taattgttgc当地 acattaaag  
13801 aaatactgtt ctttacatgtt ttgttgc当地 atgatttttta caataagaag gattggat  
13861 acttcgttgc当地 gaatctgttccatg atcttacgttccatg ttttgc当地 ctttgc当地  
13921 aatcattttttaa agactgttccatg atcttacgttccatg ttgttgc当地 attttgc当地  
13981 tactgttccatg agataatgttccatg gtttgc当地 gtttgc当地 gtttgc当地  
14041 aatgttgc当地 aggttgc当地 gtttgc当地 ttttgc当地 ttacttgc当地 ctgttgc当地  
14101 ttacttgc当地 ttacttgc当地 ttttgc当地 ttttgc当地 gtttgc当地 ttttgc当地  
14161 ctttacatgttccatg ttgttgc当地 ttgttgc当地 attttgc当地 gtttgc当地  
14221 accgttccatg ttgttgc当地 ttgttgc当地 gtttgc当地 ttttgc当地  
14281 atagggttccatg ttgttgc当地 ttgttgc当地 ttttgc当地  
14341 caagtttgc当地 accactgttccatg ttgttgc当地 ttttgc当地  
14401 ctggatgttccatg ttgttgc当地 ttgttgc当地 ggttgc当地 ttacatgttccatg  
14461 cgcttgc当地 ttgttgc当地 ttgttgc当地 ttttgc当地  
14521 ctggatgttccatg ttgttgc当地 ttgttgc当地 ttttgc当地  
14581 atgttgc当地 ttttgc当地 ttttgc当地  
14641 ttttgc当地 ttttgc当地 ttttgc当地  
14701 aggttgc当地 ttttgc当地 ttttgc当地  
14761 gtgttgc当地 ttttgc当地 ttttgc当地  
14821 atgttgc当地 ttttgc当地 ttttgc当地  
14881 ttttgc当地 ttttgc当地 ttttgc当地  
14941 aatgttgc当地 ttttgc当地 ttttgc当地  
15001 ttttgc当地 ttttgc当地 ttttgc当地  
15061 gtactatgttccatg ttgttgc当地 ttttgc当地  
15121 gagtttgc当地 ttttgc当地 ttttgc当地  
15181 ctgttgc当地 ttttgc当地 ttttgc当地  
15241 gagtttgc当地 ttttgc当地 ttttgc当地  
15301 ctgttgc当地 ttttgc当地 ttttgc当地  
15361 gtgttgc当地 ttttgc当地 ttttgc当地  
15421 atgttgc当地 ttttgc当地 ttttgc当地  
15481 ttttgc当地 ttttgc当地 ttttgc当地

### FIGURE 8 F

15541 aacacaggct ctatgagtgt ctctatagaa atagggatgt tgatcatgaa ttctgtggatg  
15601 agttttacgc ttaccccgctt aaacatttc ccatgatgt tctttctgtat gatcccgatg  
15661 tggctataa cagaactat gcccgtcaag gttagtgc tagcattaa aactttaagg  
15721 cagttctta ttatcaaataat aatgtgtca tggctggc aaaaatgtgg actgagactg  
15781 accttactaa aggacccac gaaatttgtc cacagcatac aatgtctat aacaaggag  
15841 atgattacgt gtaccctgc tacccagatc catcaagaat attaggcgttgc ggctgttttgc  
15901 tcgtatgtat tggctaaaca gatggatcac tttatgtga aagggtcg tcaactggcta  
15961 ttgtatgtta cccacatcataa aacatcatac atcaggatgt tggctgtatc tttcacttgt  
16021 atttacaata cattagaaag ttacatgtatc agcttactgg ccacatgttg gacatgttatt  
16081 ccgtaatgt aactaatgt aacacccac ggtactggaa acctgagttt tatgaggctt  
16141 tgtacacacc acatacagtc ttgcaggctg taggtgcctg tggatgtgc aattcacaga  
16201 cttcacttcg ttgcggtgcc tggatttagga gaccattcct atgtgcgttgc tggctgtatg  
16261 accatgtcat ttcaacatca cacaatattt tggatgtctgt taatccctat gtttgcattt  
16321 ccccggttgc tggatgtact gatgtacac aactgtatctt aggaggatgtt agcttatttt  
16381 gcaatgtcaca taagcccccatttttttgc cattatgtgc taatggatgttgc gttttgggtt  
16441 tataaaaaa cacaatgtgttgc ggcagtgtaca atgtcactgttgc cttcaatgttgc atagcaat  
16501 gtgttgcgttgc taatgtgttgc gattacatac ttggccaaacac ttgtactgttgc agactcaagc  
16561 ttttcgcgttgc agaaacgcgttgc aaaaacccatg agaaacatcataa tggatgttgc ttttttttgc  
16621 ccactgttgc cgaatgttgc ttttgcacatc aattgttgc ttttgcgttgc gttggaaac  
16681 ctagaccacc attgaacaga aactatgttgc ttactggatc cctgttactt aaaaatgttgc  
16741 aagtacatgat tggagatgttgc acccttgc aagggtgttgc tggatgttgc gtttgcattt  
16801 gaggatgttgc gacatacaag ttgtatgttgc tggatgttgc ttttgcatttgc ttttgcattt  
16861 taatgttgcact tagtgcacatc actctgttgc cacaagatgttgc cttatgttgc attactggct  
16921 tggatgttgc actcaacatc tggatgttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
16981 tcggcatgttgc aaaaatgttgc aacttgc aacttgc gtttgcatttgc ttttgcatttgc ttttgcattt  
17041 ccatcggttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17101 cagctgttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17161 gaatcatacc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17221 tagaactgttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17281 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17341 gtgttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17401 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17461 tagtgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17521 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17581 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17641 aataggatgttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17701 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17761 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17821 ctttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17881 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
17941 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18001 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18061 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18121 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18181 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18241 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18301 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18361 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18421 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18481 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18541 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt  
18601 ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcatttgc ttttgcattt

## FIGURE 8 G

## **FIGURE 8 H**

## FIGURE 8 I

### FIGURE 8 J

28021 gtggtgcgt tatacgctagg ttttgttacc ttcatgaagg tcaccaaact gtcattta  
28081 gagacgtact ttttgttta aataaacgaa caaattaaaaa tgcttgataa tggacccaa  
28141 tcaaaccaac gtatgtcccc ccgcattaca ttgggtggac ccacagattc aactgacaat  
28201 aaccagaatg gaggaccaa tggggcaagg ccaaaacgc gcccacccca aggtttaccc  
28261 aataatactg cgtcttggtt cacagcttc actcagcatg gcaaggagga acttagatc  
28321 cctcgaggcc agggcgltcc aatcaacacc aatagtggtc cagatgacca aattggctac  
28381 taccgaagag ctacccgacg agttctgggt ggtgaeggca aaatgaaaga gtcagcc  
28441 agatggact tcttattaccc aggaactggc ccagaagctt cacttcccta cggcgctaac  
28501 aaagaaggca tcgtatgggt tgcaactgag ggagccctga atacacccaa agaccacatt  
28561 ggccacccgca atcctaataa caatgctgcc accgtgtac aacttcccta aggaacaaca  
28621 ttgcacaaaag gcttctacgc agaggaaagc agaggcgca gtcaagcctc ttctcgatcc  
28681 tcatcacgtt gtcgctgttcaagaat tcaactctg gcagcagtag gggaaattct  
28741 cctgctcgaa tggtagcgg aggtggtaa actgcccctg cgctattgtc gctagacaga  
28801 ttgaaccacg ttgagagcaa agttctgggt aaaggccaac aacaacaagg ccaaactgtc  
28861 actaagaat ctgtgtgttgc ggcattctaaa aagccctggcc aaaaacgtac tgccacaaaa  
28921 cagtacaacg tcaactcaagc atttgggaga cgtggccag aacaaacccaa aggaaatttc  
28981 gggaccaag acctaatacg acaaggaaact gattacaaac attggccgca aattgcacaa  
29041 ttgtccaa gtgcctgtc atttttggta atgtcacgca ttggcatgga agtcacaccc  
29101 tcgggaacat ggctgactta tcatggagcc attaaatgg atgacaaaga tccacaattc  
29161 aaagacaacg tcaactgtc gaacaaggcac attgacgcat acaaaccatt cccaccaaca  
29221 gagcctaaaa aggacaaaaa gaaaaagact gatgaagctc agcccttgcc gcagagacaa  
29281 aagaaggcgc ccactgtgac tcttctccct gcccgtgaca tggatgattt ctccagacaa  
29341 cttaaaattt ccatgagtgg agcttctgtc gattcaactc aggatcaaactc actcatgtg  
29401 accacacaag gcagatggc tatgtaaacg tttcgcaat tccgtttacg atacatgtc  
29461 tactttgtc cagaatgaat tctcgtaact aaacacgcaca agtaggttta gttacttta  
29521 atctcacata gcaatctta atcaatgtt aacattaggg aggacttgaa agagccacca  
29581 cattttcatc gaggccacgc gggtacgtt cgagggtaca gtaataatg ctatggagag  
29641 ctgcctatat ggaagagccc taatgtgtaa aattaattttt agtagtgcta tcccatgtt  
29701 atttaatacg ctcttagga gaatgacaaa aaaaaaaaaa aaaaaaaaaa a

**FIGURE 9A**

1 ctaccccgaga aaagccaaacc aacctcgatc tctttagat ctgttccta aacgaacttt  
61 aaaatctgtg tagctgtcgc tcggctgcat gccttagtgca cctacgcagt ataaaacaata  
121 ataaatttta ctgtcggtga caagaaacga gtaactcgtc cctcttctgc agactgctta  
181 cggtttcgtc cgtgttgcag tcgatcatca gcatacctag gtttcgtccg ggtgtgaccg  
241 aaaggtaaga tggagagcct tttttttgt gtcaacgaga aaacacacgt ccaactcagt  
301 ttgcctgtcc ttcaaggtag agacgtgcta gtgcgtggct tcgggactc tggaaagag  
361 gcccatacg aggacacgtga acacccaaa aatggcactt gtggctatgt agagctggaa  
421 aaaggcgtac tgccccagct tgaacagccc tatgtgtca taaaacgttc tgatgcctt  
481 agcacaatc acggccacaa ggtcggttag ctgttgccgaa aatggacgg cattcagtac  
541 ggtcgtagcg gtataaacact gggagtaactc gtgccacatg tggcgaaac  
601 taccgcataatg ttcttctcg taagaacagg aataaggggag ccgggtggtca tagctatggc  
661 atcgatctaa agtcttatga cttaggtgac gagcttggca ctgatccat tgaagattat  
721 gaacaaaactt ggaacactaa gcatggcagt ggtgcactcc  
781 aatggagggtg cagtcactcg ctatgtcgac aacaatttct  
841 cttgattgca tcaaaggattt tctcgacacgc gcgggcaagt  
901 caacttgatt acatcgagtc gaagagaggt gtctactgct  
961 attgccttgt tcactgagcg ctctgataag agtacgagc  
1021 aagagtgcctt agaaaatttga cacttccaaa gggaatgcc  
1081 aactcaaaatg tcaaagtcat tcaaccacgt gttaaaaaga  
1141 gggcgatatac gctctgtgtc ccctgttgca tctccacagg  
1201 tctaccttga tgaatgtaa tcattgcgtt gaagttcat  
1261 aaagccactt gtgaacattt gggactgaa aatttagtta  
1321 gggtaacctac ctactaatgc ttagtggaaa atgcatgtc  
1381 attggacctg agcatagtg tgcagattt cacaaccact  
1441 cgcaagggag gtaggactag atgttttggaa ggctgtgtt  
1501 aataagcggt cctactgggt tcctcggtc agtctgtata  
1561 attactgggt acaatgttga gaccttgaat gaggatctcc  
1621 cgtgttaaca ttaacattgt tggcgattt catttgaatg  
1681 gcatctttct ctgcttctac aagtgcctt attgacacta  
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1801 aaagggtgtt ggaacattgg acaacagaga tcaagttttaa  
1861 tcacaggctg ctgggtttat cagatcaatt tttgcgcgca  
1921 tcaattctgtt atttggaaatg agcagctgtc accataattt  
1981 ttacgtctt tgcacgccc gtttataat tcaagacgtc  
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2101 ggcactactg ttgaaaaact caggccatc ttgaatggaa  
2161 ggagttgaat ttctcaagga tgcttggag attctcaat  
2221 gacatcgatc agggtcaat acaggttgc tcaagataaca  
2281 ttcatgtatg ttgttacaa ggcactcgaa atgtgcattt  
2341 gcaaagggtc gatcaactaa cttaggtgaa gtcttcatcg  
2401 cgtcgtatgt tacgtggca ggagcagctg caactactca  
2461 gaagtaaccc ttcttgaagg tgattcacat gacacagtag  
2521 ctcaagaacg gtgaactcgaa gcaactcgag acgcccgtt  
2581 atcggtggca caccaggctg tgtaaatggc ctcgtct  
2641 caatactcgat cattgtctcc tggttactg gctacaaaca  
2701 ggtgcaccaa ttaaagggtt aacctttggaa gaagataact  
2761 aagaatgtga gaatcacatt tgagcttgc gAACGTGTT  
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2881 gaggctgtt tgaagacttt acaaccagg tctgatctcc  
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3001 tcatcaatc tttttttttt cttttaccc ccaatgttgc  
3061 tgtggaaatg aaaaatttga tggaaacctgt gaaatgtact  
3121 caaggctccct ctctggaaat tgggtccca gctggaaacag  
3181 gaggaagact gggttggatga tactactgtg caatcagaga  
3241 acacctgttgc aaccaggat tcaatgttact gtttattt  
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8821 tttttttttt tttttttttt tttttttttt tttttttttt  
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9061 tttttttttt tttttttttt tttttttttt tttttttttt  
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9181 tttttttttt tttttttttt tttttttttt tttttttttt  
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9421 tttttttttt tttttttttt tttttttttt tttttttttt  
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9601 tttttttttt tttttttttt tttttttttt tttttttttt  
9661 tttttttttt tttttttttt tttttttttt tttttttttt  
9721 tttttttttt tttttttttt tttttttttt tttttttttt  
9781 tttttttttt tttttttttt tttttttttt tttttttttt  
9841 tttttttttt tttttttttt tttttttttt tttttttttt  
9901 tttttttttt tttttttttt tttttttttt tttttttttt  
9961 tttttttttt tttttttttt tttttttttt tttttttttt

**FIGURE 9B**

3661	cagtcttac	aagtgtgcgt	gcagacgggt	cgtacacagg	tttatattgc	agtcaatgac
3721	aaagctctt	atgaggcaggt	tgtcatggat	tatcttgata	acctgaagcc	tagagtggaa
3781	gcacctaaac	aagggagcc	accaaacaca	gaagattcca	aaactgagga	gaaatctgtc
3841	gtacagaagc	ctgtcgatgt	gaaggccaaaa	attaaggcct	gcattgatga	ggttaccaca
3901	acactggaaag	aaactaagg	tcttaccaat	aagttactct	tgttgctga	tatcaatgggt
3961	aagcttacc	atgattctca	gaacatgctt	agaggtgaag	atatgtctt	ccttgagaag
4021	gatgcacctt	acatggtagg	tgtatgttac	actagtgtg	atatcacttg	tgttgtaata
4081	ccctccaaaa	aggctgggg	cactactgag	atgctctaa	gagctttgaa	gaaagtgcga
4141	gttgcgttgt	atataaccac	gtaccctgga	caaggatgtg	ctggttatac	acttgaggaa
4201	gctaagactg	ctcttaagaa	atgcaaatct	gcattttatg	tactaccttc	agaagcacct
4261	aatgctaagg	aagagattt	aggaactgt	tcctggattt	tgagagaaaat	gcttgctcat
4321	gctgaagaga	caagaaaaatt	aatgcctata	tgcatggatg	ttagagccat	aatggcaacc
4381	atccaaacgta	agtataaaagg	aattaaaatt	caagaggcga	tcgttgacta	tgggtccga
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4501	aatgagccgc	ttgtcacaat	gccaaattgg	tatgtgacac	atgttttaa	tcttgaagag
4561	gctgcgcgt	gtatgcgttc	tcttaaagct	cctgcccgt	tgtcgtatc	atcaccagat
4621	gctgttacta	catataatgg	atacactact	tcgtcatcaa	agacatctga	ggagcacctt
4681	gtagaaacag	tttctttg	ttggcttac	agagatttgt	ccttattcagg	acagcgtaca
4741	gagttaggt	ttgaatttct	taagcgtgg	gacaaaattt	tgtaccacac	tctggagagc
4801	cccgctcgagt	ttcatcttga	cggtgagg	cttctactt	acaactaaa	gagtcttta
4861	tccctgcggg	aggtaagac	tataaaagt	ttcacaactg	tggacaacac	taatcttccac
4921	acacagctt	ttggatatgtc	tatgacat	ggacagcagt	ttggtccaa	atacttgat
4981	gggtgcgtat	ttacaaaaat	taaacctcat	gtaaatcatg	aggtaagac	tttcttgt
5041	ctacccatgt	atgacacat	acgtagtga	gctttcgagt	actaccatac	tcttgcgtat
5101	agtttctt	gttaggtat	gtctgtttt	aaccacacaa	agaaatggaa	atttcccaa
5161	tttgggtt	taacttcaat	taatgggt	gataacaat	tttatttgc	tagtgtttt
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5281	agagcccg	ctgggtatgc	tgctaaactt	tgtgcacta	tactcgctt	cagtaataaa
5341	actgttggcg	agcttgggt	tgtcagagaa	actatgaccc	atcttctaca	gcatgctaat
5401	ttggatctg	caaagcgagt	tcttaatgt	gtgtgtaaac	atttgttca	aaaaactact
5461	accttaacgg	gtgtagaagc	tgtgtatgt	atgggtactc	tatcttata	taatcttaag
5521	acagggtttt	ccattccat	tgtgtgtt	cgtgtatgta	cacaatatct	agtacaacaa
5581	gagtcttctt	ttgttatgt	gtctgcacca	cctgctgagt	ataaaattaca	gcaagggtaca
5641	ttcttatgt	cgaaatgaga	cactggtaac	tatcagtgt	gtcattacac	tcatataact
5701	gctaaggaga	ccctctatcg	tattgacgga	gctcaccta	caaagatgtc	agagtacaaa
5761	ggaccagtga	ctgatgtttt	ctacaaggaa	acatcttaca	ctacaaccat	caagcctgt
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5881	aaaaaggata	atgcttacta	tacagagcag	cctatagacc	ttgtaccaac	tcaaccatta
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6121	aaagggtcta	aattactgca	taagccaatt	gtttggcaca	ttaaccaggc	tacaaccaag
6181	acaacgttca	aaccaaacac	ttgggttta	cgttgcctt	ggagtacaaa	gccagtagat
6241	acttcaaatt	catttgaat	tctggcagta	gaagacacac	aaggaaatgg	caatctgt
6301	tgtgaaagt	acaacccac	ctctgaagaa	gtagtggaaa	atcctaccat	acagaaggaa
6361	gtcatagat	gtgacgtgaa	aactaccgaa	gtttaggca	atgtcatact	taaaccatca
6421	gatgaagg	ttaaagtaac	acaagagtt	ggtcatgagg	atcttatttgc	tgcttatgt
6481	gaaaacacaa	gcattaccat	taagaaacct	aatgagctt	cactagcctt	aggtttaaaa
6541	acaattgcca	ctcatgttat	tgctgcaatt	aatagtgtt	cttggagtaa	aattttggct
6601	tatgtcaaac	cattttaagg	acaagcagca	attacaacat	caaatttgc	taagagatta
6661	gcacaacgt	tgtttaacaa	ttatattgcct	tatgtgtt	cattattgtt	ccaatttgcgt
6721	acttttacta	aaagtaccaa	ttctagaatt	agagcttac	tacccataac	tattgtctaa
6781	aatagtgtt	agagtgttgc	taaattatgt	ttggatggcc	gcattaaatta	tgtgaagtca
6841	ccccaaattt	ctaaatttgg	cacaatcgct	atgtggctat	tgttgcatt	tatttgcctt
6901	ggttctctaa	tctgtgttac	tgctgtttt	ggtgtactct	tatctaattt	tgggtccct
6961	tcttatttgc	atggcgatgt	agaattgtat	cttatttgc	ctaacgttac	tactatggat
7021	ttctgtgtt	gttcttttcc	ttgcagcatt	tgttgcatt	gattagactc	ccttgattct
7081	tatccagctc	ttgaaaccat	tcagtgacg	atttcatgt	acaagctaga	cttgacaatt
7141	ttaggtctgg	ccgctgagtg	ggtttggca	tatatgtt	tcacaaaattt	cttttatttta
7201	ttaggtcttt	cagctataat	gcagtggtt	tttggctatt	ttgctgtat	tttcatcagc
7261	aattcttggc	tcatgtgggt	tatcattat	attgtacaaa	ttggccccgt	ttctgcaatg
7321	tttaggtatgt	acatcttctt	tgcttctt	tactacat	ggaagagct	tggtcatatc

FIGURE 9C

7381 atggatgggtt gcaccccttc gacttgcattg atgtgtata agcgcatacg tgcccacacgc  
 7441 gttgagtgtt caactattgt taatggcatg aagagatctt tctatgtcta tgcaaatggaa  
 7501 ggccgtggct tctgcaagac tcacaattgg aattgtctca attgtgacac attttgact  
 7561 ggttagatcat tcatttagta tgaagttgtc cgtgatgtt cactccaggtaaaaagacca  
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 8401 agactaactt gtgctacaac tagacaggat gtcaatgtca taactactaa aatctcact  
 8461 aagggtggta agattgttag tacttggttt aaacttatgc ttaaggccac attattgtc  
 8521 gttctgtcg cattgggtttt ttatatgtt atgcccgtac atacattgtc aatccatgtat  
 8581 ggttacacaa atgaaatcat tggttacaaa gcccattcagg atgggtgtcac tcgtgacatc  
 8641 atttctactg atgattgttt tgcaaaaaa catgctggtt tgacgcgtt gtttagccag  
 8701 cgtgggtggc catacaaaaaa tgacaaaagc tgccctgttag tagctgtat cattacaaga  
 8761 gagatgggt tcatatgtcc tggcttccgg ggtactgtgc tgagagcaat caatggtgac  
 8821 ttcttgatt ttcttacccg tggtttttagt gctgttgcacatttgcacaccccttcc  
 8881 aaacttattt agtataatgtt ttttgcatttctgtcg ttcttgctgc tgagtgtaca  
 8941 atttttaagg atgctatggg caaacctgtt ccattttgtt atgacactaa ttgtcttag  
 9001 ggttcttattt cttatagta gtttcgtcca gacactcgatgtt atgtgtttt ggttgggtcc  
 9061 atcatacagt ttccttaacac ttacccgttggatgttctgtt ggttctgtt ggttgggtt  
 9121 gctgagtaact gtagacatgg tacatgcgaa aggtcagaag taggtatttgcctatctacc  
 9181 agtggtagat gggttcttaa taatggcat tacagagctc tttactctt tttctgtgtt  
 9241 gttgtgcga tgaatctcat agctaaccatc ttactcttcc tttgtcaacc tttgtgggtgt  
 9301 ttagatgtgt ctgcttcaatgttccgtt ggttatttttgcctatgtt gacttggct  
 9361 gcctactact ttatgaaatt cagacgtgtt tttgggtgtt gacaccatgt tttgtgtct  
 9421 aatgcacttt tttttttgtt gtcttcaact atactctgtc tggcaccaggc ttacagctt  
 9481 ctggccggag tctacttcaatgttccgtt tttttacttgc ttttttttgcctatgtt  
 9541 tcattcttgg ctcacccatca atgggttgcctt atgttttctc ctattgtgccc  
 9601 acagcaatct atgttattctg tatttctctg aagcactgccc atgggttctt taacaactat  
 9661 ctttagaaaaa gagtcatgtt taatggatgtt acatttagt ccttcgagggaa ggctgctt  
 9721 tgtacctttt tgctcaacaa gggaaatgtac cttttatgtc gtagcggac actgttgcca  
 9781 cttacacagt ataacaggtt tcttgcatttataacaatgtt acaagtattt cagtgagcc  
 9841 ttagatacta ccagctatcg tgaagcagct tgctggccact tagcaaaggc tctaaatgac  
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 10081 tggccaaagac atgtcatttgc caccatgtt gacatgttca atcttaacta tgaagatct  
 10141 ctcatttcgca aatccaaacca tagtttttgc ttttttttgc gcaatgttca acttcgtt  
 10201 attggccattt ctatgcaaaa ttgttgcattt gggcttttttgc ttttttttgc tttttttt  
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 10321 tacaatgggtt caccatctgg tggttatgttgc ttttttttgc ttttttttgc  
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 10561 acaaccatcaa cattaaatgtt ttttttttgc ttttttttgc ttttttttgc  
 10621 tggttctta atagatttgc cactacttttgc aatggatgtt accttggc aatgaagtg  
 10681 aactatgaaat ctttgcacca agatcatgtt gacatatgg gaccccttgc tgctcaaca  
 10741 ggaattggcg tcttagatgtt gttgtgttgc ttggaaagac tgctgcagaa tggatgtat  
 10801 ggtcgacta tccttggtag cactatgttgc aagatgtt gtttttttgc ttttttttgc  
 10861 agacaatgtt cttccaaatgtt gtttttttgc ttttttttgc ttttttttgc  
 10921 cattggatgtt ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
 10981 tcactgtttt ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
 11041 attgtgttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc

**FIGURE 9D**

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11101 ttaccttctc ttgcaacagt tgcttacttt aatatggct acatgcctgc tagctgggtg
11161 atgcgttatca tgacatggct tgaattggct gacactagct tgcgtggta taggcttaag
11221 gattgtgtta tgtatgttc agcttagtt tgcttattc tcatacgac tcgcactgtt
11281 tatgtatgt ctgctagacg ttttgaca ctgtatgt tcattacact tgtttacaaa
11341 gtctactatg gtaatgctt agataaagct atttccatgt gggcttagt tatttctgtt
11401 acctctaact attctgggtt cgttacgact atcatgttt tagctagagc tatagtgtt
11461 gtgtgtgtt agtattaccc attgttattt attactggca acaccttaca gtgtatcatg
11521 cttgttattt gtttcttagg ctattgtgc tgctgtact ttggccttt ctgttactc
11581 aaccgttact tcaggcttac tcttgggtt tatgactact tggctctac acaagaattt
11641 aggtatatga actcccaggc gctttgcct cctaagagta gtattgtac tttcaagctt
11701 aacattaagt tggtgggtat tggaggtaaa ccatgtatca aggttgcac tgcgtactct
11761 aaaatgtctg acgtaaagtg cacatctgtg gtactgtct cgggttctca acaacttaga
11821 gtagagtcat cttctaaatt gtgggcacaa tgggtacaac tccacaatga tatttcttt
11881 gcaaaagaca caactgaagc ttcgagaag atggtttctc tttgtctgt tttgtatcc
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12001 cttcaggcta ttgcttcaga atttagttct ttaccatcat atggcgctt tgccactgcc
12061 caggaggcct atgagcaggc tggtagctaat ggtgattctg aagtgcgtt caaaaagttt
12121 aagaatattt tgaatgtggc taaatctgag tttgaccgtg atgctgcccc gcaacgcaag
12181 ttggaaaaga tggcagatca ggctatgacc caaatgtaca aacaggcaag atctgaggac
12241 aagaggcga aagtaactag tgctatgca acaatgtct tcactatgt taggaagctt
12301 gataatgtatg cacttaacaa cattatcaac aatgcgcgtg atggttgtgt tccactcaac
12361 atcataccat tgactacagc agccaaactc atgggttgg tccctgatta tggtagctac
12421 aagaacactt gtgtatgttac caccttaca tgcgtatctg cactctggaa aatccagcaa
12481 gttgtgtatg cggatagcaa gattgttcaa cttagtggaa ttaacatggaa caattcacca
12541 aatttggctt ggccttattt tggtagctatc taaagggcca actcagctgt taaactacag
12601 aataatgaac tgagtccagt agcactacga catgtgtct gtgcggctgg taccacacaa
12661 acagcttgc tgcgtgacaa tgcacttgcc tactataaca attcgaaggg aggtagttt
12721 gtgtgttgc tactatcaga ccaccaagat ctcaatggg cttagattccc taagagtat
12781 ggtacaggta caatttacac agaactggaa ccaccttgc ggtttgttac agacacacca
12841 aaaggcccta aagtgaaata ctgttacttc atcaaaggct taaacaacct aaatagaggt
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12961 cctgccaatt caactgtgt ttccctctgt gctttgcag tagaccctgc taaagcatat
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13081 cacactggta caggacaggc aattactgtt acaccagaag ctaacatggaa ccaagagtcc
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13501 taaaactaa ttgtgttgc ttccaggaga aggatgagga aggcaattta ttagactctt
13561 actttgttagt taagaggcat actatgtcta actaccaaca tgaagagact atttataact
13621 tggtaaaga ttgtccagcg gttgtgttcc atgactttt caagttttaga gtagatgggt
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13741 atgcctacg tcattttgtt gaggtaatt gtgatcatc aaaagaaata ctcgtcacat
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13861 ctgacatctt acgcgtatata gctaattttt gtgagcgtgt acgcacatca ttattaaaga
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13981 atcagatctt taatgggaac tggtaacgtt tcgggtattt cgtacaagta gcaccaggct
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14161 atttgctgaa atatgattttt acggaagaga gactttgtt cttcgaccgt tattttaaat
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14281 attgtcaaa cttaatgtt ttatgttca ctgtgttcc acctacaagt ttggaccac
14341 tagtaagaaa aatatttgc gatgtgtt cttttgtgt ttcaactggaa taccattttc
14401 gtgaggtagg agtcgtatcat aatcaggatg taaacttaca tagctcgct ctcagttca
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14581 ctgtcaaacc cggtaattttt aataaaagact tttatgactt tgctgtgtct aaaggttct
14641 ttaaggaagg aagttctgtt gaactaaaac acttcttctt tgctcaggat ggcaacgctg
14701 ctatcgtga ttatgactat ttcgttata atctgcacaa aatgtgtat atcagacaac
14761 tcctattcgtt agttgaaggat tttgtataat acttgcattt tgacgtatgtt ggctgttattt

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**FIGURE 9E**

14821	atgccaacca	agtaatcggtt	aacaatctgg	ataaaatcagc	tggtttccca	tttaataaaat
14881	ggggtaaggc	tagactttat	tatgactcaa	tgagttatga	ggatcaagat	gcactttcg
14941	cgtataactaa	gcgtaatgtc	atcccacta	taactcaat	gaatcttaag	tatgccatta
15001	gtgcaaagaa	tagagctcgc	accgttagctg	gtgtctctat	ctgttagtact	atgacaaaata
15061	gacaggttca	tcaagaaattt	ttgaagtcaa	tagccgcac	tagaggagct	actgtgttaa
15121	ttggaacaag	caagtttac	ggtgctggc	ataaatatgtt	aaaaactgtt	tacagtgtat
15181	tagaaactcc	acaccttatg	ggttggattt	atccaaaatg	tgacagagcc	atgcctaaca
15241	tgcttaggat	aatggcctct	cttggctt	ctcgcaaaaca	taacacttgc	tgttaacttat
15301	cacaccgtt	ctacaggta	gctaacgagt	gtgcgcaagt	attaagttag	atggcatgt
15361	gtggccgctc	actatatgtt	aaaccagggt	gaacatcatc	cggtgatgct	acaactgctt
15421	atgctaata	tgcttttaac	atttgtcaag	ctgttacagc	caatgttaat	gcacttcttt
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15661	actatgcggc	tcaagggtt	gtagctagca	ttaagaactt	taaggcagg	ctttattatc
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15781	ctcacaaatt	ttgctcacag	catacaatgc	tagttaaaca	aggagatgat	tacgtgtacc
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15901	aaacagatgg	tacacttatg	attgaaaggt	tcgtgtca	ggctattgtat	gcttaccac
15961	ttacaaaaca	tcctaatcag	gagtatgtc	atgtcttca	cttgatttt	caatacatta
16021	gaaaggta	tgatgagctt	actggccaca	tgttggacat	gtattccgt	atgctaacta
16081	atgataaacac	ctcacggta	tggaaacctg	agttttatga	ggctatgtac	acaccacata
16141	cagtcttgc	ggctgttaggt	gcttggat	tgtgcaattc	acagacttca	cttcgttg
16201	gtgcctgtat	taggagacca	ttcctatgtt	gcaagtgtc	ctatgaccat	gtcatttca
16261	catcacaaat	atttgttg	tctgttataatc	cctatgttg	caatgcccc	gttggatgt
16321	tcactgtatgt	gacacaactg	tatctaggag	gtatgagta	ttattgcaag	tcacataagc
16381	ctccattatg	tttccattt	tgtgtcaat	gtcagggttt	tgggttatac	aaaaacacat
16441	gtgttaggcag	tgacaatgtc	actgacttca	atgcgatagc	aatatgtat	tggactaata
16501	ctggcgattt	cataacttgc	aacacttgc	ctgagagact	caagctttt	gcagcagaaa
16561	cgctcaaagc	cactgagggaa	acattna	tgtcatatgg	tattgccc	gtacgcgaag
16621	tactctctga	cagagaattt	catcttcat	ggggagggtgg	aaaacctaga	ccaccattga
16681	acagaaacta	tgtcttact	ggttaccgt	taactaaaa	tagaaagta	cagattggag
16741	agtacaccc	tgaaaaaggt	gactatgtt	atgtgttgt	gtacagaggt	actacgacat
16801	acaaggtaa	tggtggat	tactttgtt	tgacatctca	cactgtatgt	ccacttagt
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16921	acatctcaga	ttagttttt	agcaatgtt	caaattatca	aaaggcggc	atgcaaaatg
16981	actctacact	ccaaggacca	cctgtact	gtaagagtc	tttgcattc	ggacttgct
17041	tctattaccc	atctgctc	atagtgtata	cgcatgtc	tcatgcagct	gttgcgtccc
17101	tatgtaaaa	gdcattaaaa	tatttgc	tagataaaatg	tagataatc	atacctgc
17161	gtgcgcgcgt	agagtgttt	gataaattca	aagtgaattc	aacactagaa	cagtatgtt
17221	tctgcactgt	aatgcattt	ccagaaacaa	ctgctgacat	tgtgtctt	gtgaaatct
17281	ctatgctac	taattatgt	ttgagtgtt	tcaatgtct	acttcgtca	aaacactacg
17341	tctatattgg	cgatcctgt	caattaccag	ccccccgcac	attgtgtact	aaaggcacac
17401	tagaaccaga	atattttat	tcagttgtca	gactttagaa	aacaataggt	ccagacatgt
17461	tccttggAAC	ttgtcgccgt	tgtctgtct	aaattgttga	cactgtgt	gtttagttt
17521	atgacataaa	gctaaaagca	cacaaggaga	agtcatgtc	atgttctaaa	atgttctaca
17581	aagggtttat	tacacatgt	gtttcatct	caatcaacag	acctaaata	ggcgtttaa
17641	gagaatttct	tacacgcaat	cctgttgg	aaaagctgt	tttattctca	ccttataatt
17701	cacagaacgc	tgtgtatca	aaaatctt	gattgcctac	gcagactgtt	gattcatcac
17761	agggttctga	atatgactat	gtcatattca	cacaaactac	tgaacagca	cactcttgc
17821	atgtcaacc	tttcaatgt	gtatcaca	gggcaaaaat	tggcatttt	tgcataatgt
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18061	aaggattatg	ttgtgacata	ccaggcatac	caaaggacat	gacccatcg	agactcatct
18121	ctatgatggg	tttcaaaaat	aattacca	tcaatgg	ccctaata	tttattcc
18181	gcgaagaagc	tattcgtcac	gttcgtcg	ggattggctt	tgtgttag	ggctgtcat
18241	caactagaga	tgctgtgggt	actaacat	ctctccagct	aggattttct	acaggtgtt
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18361	ttaatgcaaa	acctccacca	ggtgaccat	ttaaacaat	tataccactc	atgtataaaag
18421	gcttgcctg	gaatgttagt	cgtattaa	tagtacaat	gctcagtat	acactgaaag
18481	gattgtcaga	cagagtgcgt	ttcgccctt	gggcgcatgg	cttgcgtt	acatcaatgt

**FIGURE 9F**

18541	agtactttgt	caagattgga	cctgaaagaa	cgtgttgc	gtgtgacaaa	cgtgcaactt
18601	gctttctac	ttcatcagat	acttatgcct	gctggaatca	ttctgtgggt	tttgactatg
18661	tctataaccc	atttatgatt	gatgttcagc	agtggggctt	tacgggtaac	cttcagagta
18721	accatgacca	acattgccag	gtacatggaa	atgcacatgt	ggctagttgt	gatgctatca
18781	tgactagatg	tttagcagtc	catgagtgc	ttgttaagcg	cgttgattgg	tctgttgaat
18841	accctattat	aggagatgaa	ctgagggtt	attctgcctt	cagaaaagta	caacacatgg
18901	ttgtgaagtc	tgcattgctt	gctgataagt	ttccagttct	tcatgacatt	gaaaatccaa
18961	aggctatcaa	gtgtgtgc	caggctgaag	tagaatgaa	gttctacgt	gctcagccat
19021	gttagtacaa	agcttacaaa	atagaggagc	tcttcttattc	ttatgctaca	catcacata
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19141	caatttgtgt	taggtttgac	acaagagtct	tgtcaaactt	gaacttacca	ggctgtgtat
19201	gtggtagttt	gtatgtgaat	aagcatgcat	tccacactcc	agcttgcgt	aaaagtgcgt
19261	ttactaattt	aaagcaattt	ccttctttt	actattctga	tagtccttgc	gagtctcatg
19321	gcaaaacaagt	agtgtcggt	attgattatg	ttccactcaa	atctgctacg	tgtattacac
19381	gatgcaattt	aggtgggtgc	gtttcagac	accatgcaaa	tgagtaccga	cagtaactgg
19441	atgcatataa	tatgatgatt	tctgctggat	ttagcttatg	gattacaaa	caatttgata
19501	cttataaccc	gtggaaataca	tttaccaggt	tacagagtt	agaaaatgtg	gcttataatg
19561	ttgttaataa	aggacacttt	gatggacacg	ccggcgaagc	acctgtttcc	atcattaata
19621	atgctgttta	cacaaaggta	gatgttattg	atgtggagat	cttggaaaat	aagacaacac
19681	ttccctgttaa	ttgtgcattt	gagctttggg	ctaagcgtaa	cattaaacca	gtgccagaga
19741	ttaagatact	caataattt	gggtttgata	tcgctgctaa	tactgtatc	tgggactaca
19801	aaagagaagc	cccagcacat	gtatctacaa	taggtgtctg	cacaatgact	gacattgcca
19861	agaaacctac	tgagagtgt	tgttcttcac	ttactgtctt	gtttgatgtt	agagtgtgaag
19921	gacaggtaga	cctttttaga	aacccccgt	atgggtttt	aataacagaa	gttcaagtca
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20041	gagaatcagt	aaaaacacag	tttaactt	ttaagaaagt	agacggcatt	attcaacagt
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20161	tggaaactga	ctttctcgag	ctcgctatgg	atgaatttcat	acagcgatat	aagctcgagg
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20281	attnaatgt	aggcttagcc	aagcgctac	aagattcacc	acttaaattt	gaggattta
20341	tccctatgga	cagcacagt	aaaaattact	tcataacaga	tgcgcaaaaca	gttcatcaa
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20581	aagcgtggca	accaggttt	gcgatgccta	acttgcacaa	gatgcaaaaga	atgcttctt
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20701	atgtcgcaaa	gtataactcaa	ctgtgtcaat	acttaaatac	acttacttta	gctgtaccct
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20821	ctgtgctcag	acaatgggt	ccaaactggca	cactacttgt	cgattcagat	cttaatgact
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20941	aatgggacct	tatttttagc	gatgtgtat	acccttaggac	caaacatgtg	acaaaagaga
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21061	tgggtgggtc	tatagctgt	aagataacag	agcattcttgc	aatgtctgac	ctttacaagc
21121	ttatgggcca	tttctctatgg	tggacagctt	ttgttacaaa	tgttaaatgca	tcatcatcg
21181	aagcattttt	attggggct	aactatcttgc	gcaagccaa	ggaacaaattt	gatggctata
21241	ccatgcatgc	taactacatt	ttctggagga	acacaaaatcc	tatccagttt	tcttcattt
21301	cactcttga	catgacaaa	tttcccttta	aattaagagg	aactgtgtt	atgtcttta
21361	aggagaatca	aatcaatgt	atgattttt	ctttcttgc	aaaaggtagg	cttacatcata
21421	gagaaaacaa	cagagttgt	gttcaagtg	atattcttgc	taacaactaa	acgaacatgt
21481	ttatatttctt	attatttctt	actctcaact	gtggtagtgc	ccttgaccgg	tgcaccactt
21541	ttgatgtgt	tcaagctctt	aattacactc	aacataactt	atctatgagg	gggggttact
21601	atccctgatga	aatttttaga	tcagacactc	tttattttac	tcaggatttta	tttcttccat
21661	tttattctaa	ttgttacagg	tttcataacta	ttaatcatac	gtttgacaac	cctgtcatac
21721	cttttaagga	ttgttattt	tttgcgttca	cagagaaatc	aatgttgc	cgtgggttgg
21781	tttttgggtt	taccatgaa	aacaagtcac	agtcgggtat	tattattaac	aattctacta
21841	atgttggat	acgagcatgt	aacttgc	tgtgtgacaa	ccctttctt	gctgtttctt
21901	aaccatggg	tacacagaca	catactatga	tattcgataa	tgcatttaat	tgcactttcg
21961	agtacatatac	tgatgcctt	tcgcttgc	tttcagaaaa	gtcaggtat	ttaaacaact
22021	tacgagagtt	tgtgtttaaa	aataaagatg	ggtttcttca	tgtttataag	ggctatcaac
22081	ctataagatgt	agttcggtat	ctaccctctg	gttttaacac	tttggaaaccc	atttttaagt
22141	tgccttctgg	tattaacatt	acaattttt	gagccattt	tacagcctt	tcaccctgctc
22201	aagacacttgc	gggcacgtca	gctgcagcct	atttgttgg	ctatttaaag	ccaaactacat

**FIGURE 9G**

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22261 ttatgctcaa gtatgatgaa aatggtacaa tcacagatgc tttgtattgt tctcaaaatc
22321 cacttgctga actcaaatgc tctgttaaga gctttgagat tgacaaaggaa attaccaga
22381 cctctaattt cagggttgg ccctcaggag atgttgtgag attcccaat attacaact
22441 tgtgtccctt tggagaggtt ttaatgcta ctaaattccc ttctgtctat gcatgggaga
22501 gaaaaaaaaat ttctaattgtt gttgtgatt actctgtgt ctacaactca acatttttt
22561 caaccttaa gtgctatgac gtttctgcca ctaagtggaa tgatcttgc ttctccaatg
22621 tctatgcaga ttctttgta gtcaagggag atgatgtaa acaaatacgcc ccaggacaaa
22681 ctgggtttat tgctgattat aattataat tgccagatga ttcatgggt tggccttgc
22741 ctggaaatac taggaacatt gatgtactt caactggtaa ttataattt aaataatagg
22801 atcttagaca tggcaagctt aggcccttt agagagacat atctaattgtt ctttcctccc
22861 ctgatggcaa accttgcacc ccacctgctc ttaattgtt ttggccatta aatgattatg
22921 gttttcacac cactactggc attggctacc aaccttacag agttgttagt ctttctttt
22981 aactttaaa tgcaccggcc acgggttgg gaccaaattt atccactgac cttattaaaga
23041 accagtgtgt caattttat ttaatggac tcaactggta tgggtgtta actccttctt
23101 caaagagatt tcaaccatt caacaattt gccgtatgt ttctgatttc actgattccg
23161 ttcgagatcc taaaacatctt gaaatattttag acatttcacc ttgtctttt ggggtgtaa
23221 gtgttaatttac acctggaaaca aatgttcat ctgaagtgg ttttttatata caagatgtt
23281 actgcactga tggttctaca gcaattcatg cagatcaact cacaccagct tggcgcata
23341 attctactgg aaacaatgtt ttccagactc aagcaggctg tctttagga gctgagcatg
23401 tcgacacttc ttatgagtgc gacattccta ttggagctgg catttggctt agttaccata
23461 cagtttctttt attacgttagt actagccaa aatctattgtt ggcttataact atgtctttt
23521 gtgctgatag tcaatttgc tactctaata acaccatgc tatacctact aacttttcaa
23581 ttagcattac tacagaagta atgcctgtt ctatggctaa aaccccgta gattgtataa
23641 tgcacatctg cggagattt actgaatgtt ctaatttgc tcttccatat ggtagctttt
23701 gcacacaact aaatcgtgca ctctcaggta ttgtgtgtt acaggatgc aacacacgtg
23761 aagtgttcgc tcaagtcaaa caaatgtaca aaaccccaac ttgtttttt tttgtgggtt
23821 ttaatttttca acaaataattt cctgaccctc taaagccaa taagggctt ttattttaggg
23881 acttgctctt taataaggtt acactcgctg atgctggctt catgaagcaa tatggcgaat
23941 gccttaggtt tattatgtt agagatctca ttgtgtgcga gaagttcaat ggacttacag
24001 tggccacc tctgctact gatgatatga ttgctgcctt cactgctgtt ctagttatgt
24061 gtactgccac tgctggatgg acatttggt ctggcgctgc tcttccaaata cttttgcta
24121 tgcaaatggc atataagggtt aatggcattt gagttaccca aatgttctc tatgagaacc
24181 aaaaacaaat cgccaaacca tttaacaagg cgatttagtca aattcaagaa tcacttacaa
24241 caacatcaac tgcattgggc aagctgcaag acgttggtaa ccagaatgtt caagcattaa
24301 acacacttgt taaaacaactt agctctaattt ttgtgtcaat ttcaagtgtt ctaaatgata
24361 tccttcgcg acttgataaa gtcgaggcgg aggtacaaat tgacaggta attacaggca
24421 gacttcaaag ctttcaaaacc tatgtaacac aacaactaat cagggtgtt gaaatcaggg
24481 cttctgctaa tcttgctgtt actaaaatgtt ctgagttgtt tcttggacaa taaaaaagag
24541 ttgacttttgc tggaaaggcc taccacctt tgccttccc acaagcagcc ccgcattgtt
24601 ttgtcttcct acatgtcagc tatgtgcattt cccaggagag gaacttcacc acagcggcag
24661 caatttgc tgaaggcaaa gcataacttcc tctgtgaagg ttgttttgc ttaatggca
24721 cttctgggtt tattacacag aggaacttct ttctccaca aataattact acagacaata
24781 cattttgttcc agggaaattttt gatgtcgta ttggcatcat taacaacaca gtttatgtt
24841 ctctgcacc tgagcttgc tcattcaaaag aagagctgga caagttactt aaaaatcata
24901 catcaccaga ttgtgtatcc ggcgacattt caggcatca cgttctgtc gtcaacattt
24961 aaaaagaaat tgaccgcctt aatgggtcg cttaaaaattt aatgtatca ctcattgacc
25021 ttcaagaattt gggaaaattt gaccaataat ttaaatggcc ttgtatgtt tggctcgct
25081 tcatttgctgg actaattggc atcgtcatgg ttacaatctt gttttgttgc atgactatgtt
25141 gttcagttt cctcaagggtt gcatgtctt ttgtgttgc ctgcagttt gatgaggatg
25201 actctgagcc agtttcaag ggtgtcaat tacattacac ataaacgaac ttatggattt
25261 gtttatgaga ttttttactt ttggatcaat tactgcacag ccagaaaaaa ttgacaatgc
25321 ttcttcgtca agtactgtt atgctacagc aacgataaccg ctacaaggct cactccctt
25381 cggatggctt ttatttggcc ttgcatttctt tgctgtttt cagagcgcta caaaaataat
25441 tgcgcctcaat aaaagatggc agctagccct ttataaggcc ttccagttca ttgcattt
25501 actgctgcta ttgttacca tctattcaca tctttgtttt gtcgtgcag gatggaggc
25561 gcaatttttgc tacctctatg ctttgcatttata ttgttctacaa tgcattcaacg catgtagaat
25621 tattatgaga ttgttggctt gttgttgc gttgttgc gttttttt aaccattac ttatgtgc
25681 caactacttt ttgttgcgtt acacacataa ctatgttgc tttttttt aatacagtgt
25741 cacagataca attgtcgta ctgttgcgtt ctttttttcc acacccaaac tcaaagaaga
25801 ctaccaattt gttgttgcgtt ctgttgcgtt gtttttttcc gtttttttcc atgtcgttgc
25861 acatggctat ttgcatttgc ttactacca gtttttttcc gtttttttcc acacaaattt ctacagacac
25921 tggtatttgc aatgttgcattt ttttttttcc taacaaggcc tttttttcc caccgaatgtt

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FIGURE 9H

25981 gcaaatacac acaatcgacg gctttcagg agttgcta at ccagaatgg atccaattta  
26041 tgatgagccg acgacgacta cttagcgtgcc ttgttaagca caagaaagtg agtacgaact  
26101 tatgtactca ttcgtttcgg aagaaacagg tacgttaata gttaatagcg tacttcttt  
26161 tcttgcttc gtggatttc tgctgtcac actagccat cttactgcgc ttcatgttg  
26221 tgcgtactgc tgcaatattt ttaacgtgag tttagtaaaa ccaacgggtt acgtctactc  
26281 gcggttaaaa aatctgaact cttctgaagg agttcctgtat cttctggctt aaacgaacta  
26341 actattatta ttattctgtt tggacttta acattgttta tcattggcaga caacggact  
26401 attaccgttg aggagcttaa acaactcctg gaacaatggg acctagtaat aggtttccta  
26461 ttccttagcct ggattatgtt actacaattt gcctattcta atcggAACAG gttttgtac  
26521 ataataaaagc ttgttttctt ctggcttgc tgccagtaa cacttgcgtt ttttgtctt  
26581 gctgctgtct acagaattaa ttgggtgact ggcgggattt cgattgcaat ggcttgatt  
26641 gtaggctga tggcttgcgtt ctacttgcgtt gcttccttca ggctgtttgc tcgtacccgc  
26701 tcaatgtgg tattcaaccc agaaacaaac attcttctca atgtgcctct ccgggggaca  
26761 attgtgacca gaccgctcat ggaaagtgaa cttgtcattt gtcgtgtat cattcgtggt  
26821 cacttgcgaa tggccggaca ctccctaggg cgctgtgaca ttaaggacca gccaaaagag  
26881 atcaactgtgg ctacatcacg aacgcttctt tattacaaat taggagcgtc gcagcgtgta  
26941 ggcactgatt cagggtttgc tgcatacaac cgctaccgtt tgaaaaacta taaattaaat  
27001 acagaccacg ccggtagcaa cgacaatattt gctttgttag tacagtaat gacaacagat  
27061 gtttcatctt gttgacttcc aggttacaat agcagagata ttgattatca ttatgaggac  
27121 ttccaggatt gctatttggaa atcttgacgt tataataat tcaatagtga gacaattatt  
27181 taaggctcta actaagaaga attattcggg gtttagatgat gaagaaccta tggagttaga  
27241 ttatccataa aacgaacatg aaaattattt tcttcctgtac attgattgtt tttacatctt  
27301 gcgagctta tcaatcatcg gagttgttta gaggtacgac tgcgtacta aaagaacctt  
27361 gcccattcagg aacatcaggg ggcattcac catttcaccc tcttgcgtac aataaatttg  
27421 cactaacttg cacttagcaca cacttgcgtt tgcttggtc tgacggtaact cgacataacct  
27481 atcagctgcg tgcaagatca gtttccacaa aactttcatc cagacaagag gaggttcaac  
27541 aagagctcta ctcgcactt tttcttgcattt tgctgtctt agtatttttta atacttgc  
27601 tcaccattaa gagaagacaa gaatgaatga gctcaatttta attgacttctt atttgc  
27661 tttagccctt ctgctatttcc ttgttttaat aatgcttattt atattttggg tttcactga  
27721 aatccaggat ctagaagaac cttgtaccaa agtctaaacg aacatgaaac ttctcattgt  
27781 ttgtacttgt atttctctat gcagggtcat acgcactgta gtacagcgct gtgcattcaa  
27841 taaacctcat gtgcttgaag atccttgtaa ggtacaacac tagggtaat acttatagca  
27901 ctgctggct ttgtgctcta ggaaagggtt tacctttca tagatggcac actatgttc  
27961 aaacatgcac acctaattttt actatcaact gtcagatcc agtgggtgt gcgcttatag  
28021 ctaggtttg gtaccttcat gaaggccacc aaactgctgc atttagagac gtacttgg  
28081 tttaataaa acgaacaaat taaaatgtct gataatggac cccaaatcaaa ccaacgttagt  
28141 gccccccgca ttacatttgg tggacccaca gattcaactg acaataacca gaatggagga  
28201 cgcaatgggg caaggccaaa acagcgccga ccccaagggtt taccataaa tactgcgtct  
28261 tggttcacag ctctcactca gcatggcaag gaggaactt gatccctcg aggccaggc  
28321 gttccaatca acaccaatag tggccagat gaccaatttgc gctactaccg aagagctacc  
28381 cgacgagttc gtgggtgtc cgccaaatg aaagagctca gccccagatg gtacttctat  
28441 taccttagaa ctggcccaaga agcttcaactt ccctacggcg ctaacaaaga aggcacatcgta  
28501 tgggttgcggc ctgaggggagc cttgtatata cccaaagggcc acattggccac ccgcaatctt  
28561 aataacaatg ctggccaccgt gctacaactt cctcaaggaa caacattgccc aaaaggcttc  
28621 tacgcagagg gaaggcaggcc cgccagttca gctcttctc gctcttcatc acgttagtc  
28681 ggttaattcaa gaaatttcaat tcttgcggc agtagggaa atttcttgc tcgaatggc  
28741 agcggagggtg gtggaaactgc ctcgcgtt tgctgtctt acagattgaa ccagcttgag  
28801 agcaaagttt ctggtaaagg ccaacaacaa caaggccaaa ctgtacttca gaaatctgt  
28861 gctgaggcat ctaaaaaggcc tggccaaaaa cgtactgcca caaaacagta caacgtcact  
28921 caagcatttgc ggagacgtgg tccagaacaa acccaaggaa atttccggg ccaagacacta  
28981 atcagacaaag gaactgatca cttttttttt cccaaatgg cccaaatgg cacaatttgc tccaagtgc  
29041 tctgcatttc ttggaaatgtc acgcatttgcg atggaaatgtca caccttcggg aacatggctg  
29101 acttatcatg gagccattaa attggatgac aaagatccac aattcaaaaga caacgtcata  
29161 ctgctgaaca agcacatttgc cgcataaaaa acattccac caacagagcc taaaaaggac  
29221 aaaaagaaaaa agactgtatca agctcaggctt ttgcggcaga gacaaaagaa gcagccact  
29281 gtgactcttc ttccgtcgcc tgacatggat gatttcttca gacaacttca aaattccatg  
29341 agtggagctt ctgctgttcc aactcaggca taaacactca tgatgaccac acaaggcaga  
29401 tgggctatgt aaacgttttgc gcaatttgcgtt acgtatgatca tagtctactc ttgtgc  
29461 tgaattctcg taactaaaca gcacaaggtag gtttagttaa ctttaatctc acatagacaat  
29521 cttaatcaa tggtaacat tagggaggac ttggaaagacg caccacattt tcattcgaggc  
29581 cacgccccggactt acgatcgagg gtacagtggaa taatgttgc gggatgttgc tatatggaa

**FIGURE 9I**

29641 agccctaattgtaaaaatatttttagtagtgctatccccatgtgattttaatagc ttct  
29701 taggagaatgacaaaaaaaaaaa aaaaaaaaaaaa aaaaaaa

**FIGURE 10**

1	tctgtgttagc	tgtcgctcg	ctgcacgcct	agtcaccta	cgcagataa	acaataataa
61	attttactgt	cggtgacaag	aaacggat	ctcgccctc	ttctgcagac	tgcttacgg
121	ttcgccgtg	ttgcagtca	tcatcagcat	acctagg	cgtccgggt	tgaccgaaag
181	gtaagatgga	gagccttgtt	cttgggtgtca	acgagaaa	acacgtccaa	ctcagttgc
241	ctgtccttca	ggtagagac	gtgctagtg	gtggcttcgg	ggactctgt	gaagaggccc
301	tatcgaggc	acgtgaacac	ctcaaaaatg	gcacttgtgg	tctagtagag	ctggaaaaaag
361	gcgtactgcc	ccagcttgaa	cagccctatg	tgttcattaa	acgttctgtat	gccttaagca
421	ccaatcacgg	ccacaagg	gttgagctgg	ttgcagaaat	ggacggcatt	cagtacggtc
481	gtagcggtat	aacactggg	gtactcg	cacatgtggg	cgaaacccca	attgcatacc
541	gcaatgttct	tcttcgtaa	aacggtaata	aggagccgg	tggtcatagc	tatggcatcg
601	atctaaagtc	ttatgactta	ggtgcacg	ttggcactga	tcccattgaa	gattatgaac
661	aaaactggaa	cactaagcat	ggcagtgt	cactccgtga	actcaactcg	gagctcaatg
721	gagggtgt	cactcgctat	gtcgacaca	atttctgtgg	cccagatggg	taccctctt
781	attgcataa	agattttct	gcacgcgc	gcaagtcaat	gtgcactctt	tccgaacaac
841	ttgattacat	cgagtcgaag	agagg	actgctgc	tgaccatgag	catgaaattg
901	cctggttcac	tgagcgtct	gataagagct	gcgagcacca	gacacccttc	gaaattaaga
961	gtgccaagaa	atggacact	ttcaaaagg	aatggcc	gttgggtt	cctcttaact
1021	caaaagtcaa	agtcatcaa	ccacgtt	aaaagaaaa	gactgagggt	ttcatggggc
1081	gtatacgctc	tgtgtaccct	gttgc	cacaggagt	taacaatatg	cacttgtct
1141	ccttgatgaa	atgtaatcat	tcgatgaa	ttcatggc	gacgtgc	tttctgaaag
1201	ccacttgtga	acattgtgg	actgaaaatt	tagttat	aggacctact	acatgtgggt
1261	acctacctac	taatgctgt	gtgaaaatgc	catgtcc	ctgtcaagac	ccagagattg
1321	gacctgagca	tagtgtgca	gattatcaca	accactcaa	cattgaaact	cgactccgc
1381	agggaggtag	gactagatgt	tttggaggt	gtgtgttgc	ctatgttgc	tgctataata
1441	agcgtgccta	ctgggttcct	cgtgctagtg	ctgatattgg	ctcaggccat	actggcatta
1501	ctggtgacaa	tgtggagacc	ttgaatgagg	atctccttga	gatactgagt	cgtgaacgt
1561	ttaacattaa	catttgtgg	gattttcatt	tgaatgaaga	ggttgc	attttggcat
1621	cttctctgc	ttctacaagt	gccttattg	acactataaa	gagtctgtat	tacaagtctt
1681	tcaaaaccat	tgttgagtcc	tgcggt			

**FIGURE 11A**

1 agtgttttat tagcaacttca  
61 gcttattata gagcccggtgc  
121 agtaataaaa ctgttggcga  
181 catgctaatt tggaatctgc  
241 aaaactacta ccttaacggg  
301 aatcttaaga caggtgttc  
361 gtacaacaag agtcttctt  
421 caaggtacat tcttatgtgc  
481 catataactg ctaaggagac  
541 gagtacaag gaccagtgc  
601 aagcctgtgt cgataaaact  
661 gggattata aaaaggataa  
721 caaccattac caaatgcgag  
781 gctgtatgatt taaatcaaatt  
841 acattcttcc cagacttgaa  
901 agtttcaaga aagggtctaa  
961 acaaccaaga caacgttcaa  
1021 ccagtagata cttcaattc  
1081 aatcttgctt gtgaaagtca  
1141 cagaaggaaat tcataagatg  
1201 aaaccatcag atgaagggt  
1261 gcttatgtgg aaaacacaag  
1321 gttttaaaaa caattgccc  
1381 attttggctt atgtcaaaacc  
1441 aagagattag cacaacgtgt  
1501 caattgtgtt ctttactaa  
1561 attgctaaaa atagtgttaa  
1621 gtgaagtcac ccaattttc  
1681 atttgcttag gttctctaatt  
1741 ggtgtccctt cttattgtaa  
1801 actatggatt tctgtgaagg  
1861 cttgattctt atccagctct  
1921 ttgacaattt taggtctggc  
1981 ttttatttat taggtcttcc  
2041 ttcatcagaatttcttggct  
2101 tctgcaatgg tttagatgt  
2161 gttcatatata tggtatggtt  
2221 gccacacgcg ttgagtgtac  
2281 gcaaatggag gccgtggctt  
2341 ttttgcactg gtatgtacatt  
2401 aaaagaccaa tcaaccctac  
2461 aatggcgcgc ttccacctcta  
2521 ctctccattt ttgtcaattt  
2581 attaatgtca tagttttga  
2641 tctgtgtact acagtcagct  
2701 tcagacgtt gagatgtac  
2761 ttttcagcaa ctttttagt  
2821 agcgatgtt caaagggtgt  
2881 cgacaagggtt ttgttgatata  
2941 tcacatcaact ctgacttaga  
3001 aataagggtt aaaaacatgac  
3061 catatcaatg cccaaatgtac  
3121 tacatgtctt tatctgaaca  
3181 atacctttta gactaacttgc  
3241 atctcactca agggtggtaa  
3301 ttattgtgcg ttctgtgc  
3361 atccatgtatg gttacacaaa  
3421 cgtgacatca tttctactga  
3481 tttagccagc gtgggtgttc  
3541 attacaagag agattggtt  
3601 aatggtgaact tcttgcat  
acagcttggaa gtcaaaattca  
tggtgtatgtc gctaaacttt  
gcttgggtat gtcagagaaaa  
aaagcgagtt cttaatgtgg  
tgttagaagct gtgtatgtata  
cattccatgt gtgtgtggc  
tgttatgtatg tctgcaccac  
gaatgagtagt actggtaact  
cctctatcgat attgacggag  
tgatgtttt tacaaggaaa  
cgatggagtt acttacacag  
tgcttactat acagagcgc  
tttgataat ttcaaactca  
gacaggctt cacaagccag  
tggcgatgt gtggctattt  
attactgtat aagccaattt  
accaaactact tgggtttac  
atttgaagtt ctggcagtag  
acaacccacc tctgaagaag  
tgacgtaaa actaccgaag  
taaagtaaca caagagtt  
cattaccatt aagaacacta  
tcatggatt gctcaatta  
attcttagga caagcagcaa  
gtttaaacat tataatgcctt  
aagtaccaat tctagaattt  
gagtgttgc aaattatgtt  
taaattgttca acaatcgcta  
ctgtgttaact gctgtttt  
tggcgatgtt gaattgtatc  
ttctttttct tgcaagcatt  
tgaacaccatt caggtgacga  
cgctgagttt gtttggcat  
agctataatg caggtgttct  
catgtggttt atcattagta  
catcttcttt gcttcttct  
cacctctcg acttgcata  
aactattgtt aatggcatga  
ctgcaagact cacaatttgg  
cattagtatg gaagttgtc  
tgaccagtc tcgtatattt  
ctttgacaag gctgtcaaa  
agacaattt agagctaaca  
tggcaagtcc aaatgcgacg  
gatgtgcacaa cctattctgt  
tgaagttcc gttaaatgtt  
tcctatggaa aaacttaagg  
agctttagat ggtgtccctt  
cgatgttgc acaaaggatg  
agtgcacatg gacatgtt  
gcccagagat ctggcgcac  
aaaaagtcc aatgtttcac  
gctgcgtaaa cttttcgat  
tgctacaactt agacagggt  
gattgttagt acttggttt  
attgggtttt tataatgtt  
tgaaatcatt ggttacaaag  
tgattgtttt gcaaaataac  
atacaaaaat gacaaaagct  
catagtgcct ggcttaccgg  
tctacctcgat gtttttagt  
atgcaccacg acttcaaggg  
gtgcactcat actcgcttac  
ctatgaccca ttttctacag  
tgtgtaaaca ttgtggtc  
tgggtactct atcttatgt  
gtgatgtac acaatatcta  
ctgctgatgta taaattacag  
atcagtggtt tcattacact  
ctcacccatc aaagatgtca  
catcttacac tacaaccatc  
agattgaacc aaaattggat  
ctatagacct tgcaccaact  
catgttctaa cacaaaattt  
cttcacgaga gctatctgtc  
actataagaca ctattcagcg  
tttggcacat taaccaggct  
gttgcctttt gagaatcaaag  
aagacacaca aggaatggac  
tagtgaaaaa tcctaccata  
ttgtggccaa tgcataactt  
gtcagtagga tctttaggt  
atgagtttcc actagcctt  
atagtgttcc ttggagtaaa  
ttcacacatc aaatttgcgt  
atgtgtttt attattgtt  
gagcttactt acctacaact  
tggatgccgg cattaattat  
tgcgttattt gttgttaagt  
gtgtactctt atctaatttt  
ttaattcgtc taacgttact  
gtttaagtgg attagactcc  
tttcatcgta caagctagac  
atatgtgtt cacaaaattt  
ttggcttattt tgcttagtcat  
ttgtacaat ggcaccgg  
actacatatg gaagagctat  
tgcgtatataa ggcgaatcg  
agagatctt ctatgtctat  
attgtctaa ttgtgacaca  
gtgattgtc actccagttt  
ttgataatgt tgcgtgtaaa  
agacctatga gagacatccg  
acactaaagg ttcaactgcct  
agtctgttc taagtctgt  
tgcttgcacca agtcttgc  
ttgatgttta tgcgcacacc  
cacttgcgc tacagctcac  
ctacatcgat gtcagctgc  
ttattgtatg tctcaaaactt  
acaatttcat getcacctat  
gtattgtactgtaatgcaagg  
tcatctgtt gtaaaaaagac  
tgctgccaat gaaagaacaac  
tcaatgtcat aactactaaa  
aacttatgtct aaggccaca  
tgccagtaga tacattgtca  
ccattcagga tgcgtact  
atgctggttt tgacgcac  
gccctgttagt agctgctatc  
gtactgtgt gagagcaatc  
ctgttggcaat catttgcac

**FIGURE 11B**

FIGURE 11C

7381 aaactacaga ataatgaact gagtccagta gcactacgac agatgtcctg tgccggctgg  
7441 accacacaaa cagcttgtac ttagtgcata gcacttgcc actataacaa ttcaaggaa  
7501 ggttagtttgc tgctggcatt actatcagac caccaagatc tcaaattggc tagattccct  
7561 aagagtgtatc gtacaggta aatttacaca gaactggaa caccttgtag gtttggta  
7621 gacacaccaa aaggccctaa agtgaataac ttgtacttca tcaaaggctt aaacaaccta  
7681 aatagaggtt agggtctggg cagtttagct getacagtac gtcttcaggc tggaaatgt  
7741 acagaagttac ctgccaattc aactgtgctt tccttctgtg cttttcgt agaccctgt  
7801 aaagcatata aggattacct agcaagtgga ggacaaccaa tcaccaactg tggaaatgt  
7861 ttgtgtacac acactggta aggacaggca attactgtaa caccagaagc taacatggac  
7921 caagagtctt ttgggttgtc ttcatgtgt ctgtattgtt gatgccacat tgaccatcca  
7981 aatcctaaag gattctgtga cttgaaaggt aagtacgtcc aaataacctac cacttgtgt  
8041 aatgacccttggg tgggttttac acttagaaac acagtctgtt ccgtotgccc aatgtggaaa  
8101 ggttatggct gtagttgtga ccaactccgc gaacccttga tgcagtctgc ggtatgcata  
8161 acgtttttaa acgggtttgc ggtgttaatgt cagcccgctc tacaccgtgc ggcacaggca  
8221 ctagtactga tgctgtctac agggctttt atatttacaa cgaaaaagtt gctgggttt  
8281 caaagttcct aaaaactaat tgctgtcgct tccaggagaa ggatgaggaa ggcaatttat  
8341 tagactctta cttttagttt aagaggcata ctatgtctaa ctaccaacat gaagagacta  
8401 ttatataactt ggttaaagat tgccagcgg ttgtctgtcc tgactttttc aagtttagag  
8461 tagatggta catgttacca catatatcac gtcagcgtct aactaaatac acaatggctg  
8521 atttagtcta tgctctacgt cattttgtat agggtaattt tgatacatta aaagaaatac  
8581 tcgtcacata caattgtctgt gatgtatgatt atttcaataa gaaggattgg tatgacttc  
8641 tagagaatcc tgacatctta cgcgtatatg ctaacttagg tgagcgtgtc cgccaaatcat  
8701 tattaaagac tgtaaaatc tgcatgtct tgcatgtatgc aggattgtt ggcgtactga  
8761 cattagataa tcaggatctt aatggaaact ggtacgattt cggtgatttc gtacaagtag  
8821 caccaggctg cggaggcttctt attgtgattt catattactt attgtctgtt cccatcc  
8881 ctttgacttag ggcattggct gctgagttccc atatggatgc tgatctcgca aaaccactt  
8941 ttaagtggaa tttgctgaaa tatgattttt cggaaagagaa actttgtctc ttgcaccgtt  
9001 attttaaataa ttggggaccag acataccatc ccaattgtat taactgttt gatgataggt  
9061 gtatccttca ttgtgcaaaac ttaatgtgt tattttctac tgggtttcca cttacaagg  
9121 ttggaccact agtaagaaaa atattttagt atgggtttcc tttgttttt tcaactggat  
9181 accattttcg tgagtttaga gtcgtacata atcaggatgt aaacttacat agctcgcgtc  
9241 tcagtttcaa ggaacttttta gtgtatgtc ctgatccagc tatgcatgca gtttctggca  
9301 atttattgtt agataaacgc actacatgtt tttcagtagc tgcactaaca aacaatgtt  
9361 ctttcaaaac tgtcaaaccgc ggttaattttt ataaagactt ttatgacttt gctgtgtct  
9421 aaggtttctt taaggaagga agttctgtt aactaaaaca cttcttctt gtcaggatg  
9481 gcaacgcgtc tattcgttattt tatgactt atcgttataa tctgccaaca atgtgtgata  
9541 tcagacaact ctttccgtt gttgaagttt ttgataaataa ctttgattttt tacgatgggt  
9601 gctgttattaa tgccaaacca gtaatcgta acaatctgg taaatcagct ggtttccat  
9661 ttaataaaatg gggtaaggctt agactttttt atgactcaat gagttatgag gatcaagatg  
9721 cacttttcgc gtataactaag cgtatgtca tccctactat aactcaaatg aatcttaatg  
9781 atgcccattttt tgccaaagaat agagctcgca ccgttagctgg tgcgttccat tgcgtacta  
9841 tgacaaatag acagtttcat cagaaattttt tgaagtcata agccggccact agaggagctt  
9901 ctgtggtaat tggaaacaaggc aagttttacg gttggctggca taatatgtt aaaaactgttt  
9961 acagtgtatgtt agaaaacttca caccttatgg gttgggattt tccaaatgtt gacagagcca  
10021 tgcctaaacat gcttaggata atggcccttc ttgttcttgc tgcctaaacat aacacttgc  
10081 gtaacttacat acaccgttcc tacaggtagt ctaacgcgtt tgcctaaacat ttaagtggaa  
10141 tggtcattgtt tggcggttc cttatgttta aaccagggtt aacatcatcc ggtgtgtct  
10201 caactgttca tgcttaatgtt gtctttaaca ttgttcaaggc ttttacagcc aatgttaatg  
10261 cacttcttc aactgtatgtt aataagatag ctgacaaatgtt tgcgttccat tgcgtacta  
10321 ggctctatgtt gtgtcttcat agaaaataggg atgttgcata tgaatcgtt gatgagttt  
10381 acgcttacat gcttacat ttctccatgtt tgattttttc tgatgtatgtt gttgtgtgt  
10441 ataacagtaa ctatgcggctt caaggttttag tagcttagcat taagaactttt aaggcagtcc  
10501 ttattatca aaataatgtt ttcattgttcc agccaaatgtt ttggac

FIGURE 12A

1 attagcgata tgtatgaccc taggacccaaa catgtgaccaa aagagaatga ctctaaagaa  
61 gggttttca cttatctgtg tggatttata aagcaaaaac tagccctggg tggttctata  
121 gctgtaaaga taacagagca ttcttggaaat gctgacctt acaagttat gggccatttc  
181 tcattttgtc cagctttgt tacaaatgtt aatgcattcat catcggaaagc attttaatt  
241 ggggctaact atcttggcaa gccgaaggaa caaatggatg gcttaccat gcatgctaac  
301 tacatttct ggaggaacac aaatccatc cagttgtctt cctattact ctttgacatg  
361 agcaaatttc ctctaaattt aaggggaact gctgtatgt ctcttaagga gaatcaaattc  
421 aatgataatga tttattcttct tctggaaaaa ggtaggctt tcatttagaga aaacaacaga  
481 gttgtggttt caagtgatat tcttgttaac aactaaacga acatgttat tttcttattt  
541 tttcttactc tcactagtgg tagtgcaccc gaccgggtca ccactttga tgatgttcaa  
601 gctcctaattt acactcaaca tacttcatct atgagggggg tttactatcc tgatgaaatt  
661 ttttagatcag acactcttta tttacttcg gatttatttc ttccatattta ttctaatgtt  
721 acagggttcc atactattaa tcatacgttt ggcaaccctg tcataccctt taaggatggt  
781 atttattttg ctgccacaga gaaatcaaattt gttgtccgtg gttgggtttt tggttctacc  
841 atgaacaaca agtcacagtc ggtgattattt attagcaattt ctactaatgt tggttatacga  
901 gcatgtactt ttgaattgtg tgacaaccct ttctttgctg tttctaaacc catgggtaca  
961 cagacacata ctatgatattt cgataatgca tttacttgcgta ctatctgtat  
1021 gcctttcgc ttgtatgttca agaaaagtca ggttattttt aacacttacg agagtttgc  
1081 tttaaaata aagatgggtc tctctatgtt tataagggctt atcaacacat agatgtatgtt  
1141 cgtgtatcac ctcttggttt taacactttt aacacttattt ttaagttgcc tcttggattt  
1201 aacattacaa attttagagc catttcttaca gcctttcgc ctgctcaaga catttggggc  
1261 acgtcagctg cagccttattt tttttggctt tttttttttt gttttttttt gttttttttt  
1321 gatgaaaatg gtacaatcac agatgtgtt gttttttttt gttttttttt gttttttttt  
1381 aatgtctt ttaagagctt tgagatgttcc accagacccctc taatttccagg  
1441 gttttttttt caggagatgt tttttttttt cttttttttt cttttttttt tttttttttt  
1501 gaggttttttta atgtactaa atttttttttt gttttttttt gttttttttt gttttttttt  
1561 aattgtgttgc ctgattactc tttttttttt gttttttttt gttttttttt gttttttttt  
1621 tatggcgttt ctggccactaa gttttttttt tttttttttt cttttttttt tttttttttt  
1681 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1741 gattataattt ataaatttgcg tttttttttt tttttttttt tttttttttt tttttttttt  
1801 aacattgtatg ctacttcaac tttttttttt tttttttttt tttttttttt tttttttttt  
1861 aagcttaggc cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1921 tgcaccccccac ctgtctttaa tttttttttt tttttttttt tttttttttt tttttttttt  
1981 actggcattt gctaccaacc tttttttttt tttttttttt tttttttttt tttttttttt  
2041 ccggccacgg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2101 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2161 ccatttcaac aatttggcccg tttttttttt tttttttttt tttttttttt tttttttttt  
2221 acatctgaaa tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2281 ggaacaaatg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2341 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2401 aatgtatcc agactcaagg tttttttttt tttttttttt tttttttttt tttttttttt  
2461 gagtgcgaca tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2521 cgtgtacta gccaatataatc tttttttttt tttttttttt tttttttttt tttttttttt  
2581 attgcttactt ctaataacac tttttttttt tttttttttt tttttttttt tttttttttt  
2641 gaagtaatgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2701 gattctactg aatgtgtttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2761 cgtgcactt cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2821 gtcaaaacaaa tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2881 atattacactg accttctttaa tttttttttt tttttttttt tttttttttt tttttttttt  
2941 aagggtgacac tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3001 aatgtctatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3061 cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3121 ggttggacat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3181 aggttcaatg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3241 aaccaattttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3301 ttgggcaagg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3361 caacttagct tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3421 gataaagtgcg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3481 caaaacctatg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3541 gctgtacta tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3601 aagggttccatc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt

**FIGURE 12B**

3661 gtcacgtatg tgccatccca ggagaggaac ttcaccacag cgccagcaat ttgtcatcaa  
3721 ggcaaagcat acttccctcg tgaagggttt atggcaactc ttgggttatt  
3781 acacagagga acttctttc tccacaaaata attactacag acaatacatt tgcgtcagga  
3841 aattgtgatg tcgttattgg catcataaac aacacagttt atgatccctc gcaacctgag  
3901 cttgactcat tcaaagaaga gctggacaag tacttcaaaa atcatacatc accagatgtt  
3961 gatcttggcg acatttcagg cattaacgc tctgtcgtca acattcaaaa agaaatttgc  
4021 cgcctcaatg aggtcgctaa aaatttaaat gaatcactca ttgaccttca agaatttgg  
4081 aaatatgagc aatatattaa atggccttgg tatgtttggc tcggcttcat tgctggacta  
4141 attgccatcg tcatggttac aatcttgctt ttttgcata ctatgtttg tagttgcctc  
4201 aagggtgcat gctcttggg ttcttgcgc aagtttgatg aggatgactc tgagccagt  
4261 ctcagggtg tcaaattaca ttacacataa acgaacttat ggattttttt atgagatttt  
4321 ttactcttgg atcaattact gcacagccag taaaaactga caatgttct cctgcaagta  
4381 ctgttcatgc tacagcaacg ataccgtac aagcctcact cccttcgga tggcttgtt  
4441 ttggcgttgc atttcttgct gttttcaga ggcgtaccaa aataattgcg ctcataaaaa  
4501 gatggcagct agccctttat aagggttcc agttcatttgc caatttactg ctgctatttgc  
4561 ttaccatcta ttcacatctt ttgcttgcgtc ctgcaggatggaggcgcaat tttttgtacc  
4621 tctatgcctt gatatactttt ctacaatgca tcaacgcattt tagaattattt atg

FIGURE 13

1 aaagaacctt gcccatcagc aacatacgag ggcaattcac catttcaccc tcttgctgac  
61 aataaatttg cactaacttg cactgcaca cactttgctt ttgcttgtgc tgacggtaact  
121 cgacataacct atcagctgcg tgcaagatca gtttcaccaa aactttcat cagacaagag  
181 gaggttcaac aagagctcta ctcgcactt ttgcttcattt tgctgtct agtattttta  
241 atactttgct tcaccattaa gagaaagaca gaatgaatga gctcaatttta attgacttct  
301 atttgcgtt ttttagcctt ctgctattcc ttgttttaat aatgcttatt atattttggt  
361 tttcaactcga aatccaggat ctagaagaac ctgttaccaa agtctaaacg aacatgaaaac  
421 ttctcattgt tttgacttgt atttctctat gcagttgcatt atgcactgta gtacagcgct  
481 gtgcattctaa taaacctcat gtgcttgaag atccctgttaa ggtacaacac taggggtaat  
541 acttatagca ctgcttggct ttgtgcctaa ggaaagggtt tacctttca tagatggcac  
601 actatggttc aaacatgcac acctaattgtt actatcaact gtcaagatcc agctgggtgt  
661 gcgcttatag cttaggtttt gtaccttcat gaaggtcacc aaactgctgc atttagagac  
721 gtacttgggtt ttttaataa acgaacaaat taaaatgtot gataatggac cccaatcaaa  
781 ccaacgttagt gccccccgca ttacatttgg tggaccacca gattcaactg acaataacca  
841 gaatggagga cgcaatgggg caaggccaaa acagcgccga ccccaagggtt tacccaataa  
901 tactgcgtct tggttcacag ctctcaactca gcatggcaag gaggaactta gattccctcg  
961 aggccagggc gttccaatca acaccaatag tggtccagat gaccaaattt gctactaccg  
1021 aagagctacc cgacgagttc gtgggtggta cggcaaaatg aaagagctca gccccagatg  
1081 gtacttctat taccttaggaa ctggcccaaga agtttcaactt ccctacggcg ctaacaaaga  
1141 aggcattcgta tgggttgc当地 ctgaggggagc cttgaataca cccaaagacc acattggcac  
1201 ccgcattctt aataacaatg ctgccaccgt gtcataactt cctcaaggaa caacattgcc  
1261 aaaaggcttc tacgcagagg gaagcagagg cggcagtcaa gcctottctc gtcctctatc  
1321 acgttagtcg ggttattcaa gaaatttcaac tcttggcagc agtagggaa attctcttc  
1381 tctttttttt agcggagggtt gtgaaacttgc ctttcgcgcta ttgctgttagt acagattgaa  
1441 ccagctttagt agcaaaatggt ctggtaaagg ccaacaaacaa caaggccaaa ctgtactaa  
1501 gaaatctgt gctgaggcat ctaaaaagcc tggccaaaaa cgtacagccca caaaacagta  
1561 caacgtcaacttca caagcatttgg ggagacgtgg tccagaacaa acccaaggaa atttcgggaa  
1621 ccaagaccta atcagacaag gaactgatta caaacattgg ccgcaatttgc cacaatttgc  
1681 tccaaatgttcc tctgcatttc ttggaaatgtc acgcattggc atggaaagccg cacccctcg  
1741 aacatggctg acttatcatg gagccattaa attggatgac aaagatccac aattcaaaaga  
1801 caacgtcata ctgctgaaca agcacattga cgcataacaa acattcccac caacagagcc  
1861 taaaaaggac aaaaagaaaa agactgatga agctcagcc ttgcccaga gacaaaagaa  
1921 gcagcccaact gtgactttc ttccctgcggc tgacatggat gatttctcca gacaacttca  
1981 aaattccatg agtggagctt ctgctgattt aactcaggca taaacactca tgatgaccac  
2041 acaaggcaga tggctatgt aaacgtttc gcaattccgt ttacgatata tagtctactc  
2101 ttgtgcagaa tgaattctcg taactaaaca gcacaagttag gtttagttaa ctttaatctc  
2161 acatagcaat cttaatcaa tgtgttaacat tagggaggac ttgaaagagc caccacattt  
2221 tcatcgaggc cacgcggagt acgatcgagg gtacagtgaa taatgctagg gagagctgcc  
2281 tatatggaaag agccctaattt tgta

**Figure 14A**

1 caagtcttc aaaaccattg ttgagtcgt cggttaactat aaaggtaacca agggaaaggc  
61 cgtaaaagggt gcttggaaaca ttggacaaca gagatcgat ttaacaccac ttttgtggtt  
121 tccctcacag gctgcgttg ttatcgatc aattttgcg cgcacactg atcagcaaa  
181 ccactcaatt ctgttgcg aaagagcgc tgcaccata ctgtatggta ttctgaaca  
241 gtcattacgt ctgtcgacg ccatggta tacttcagac ctgtccacca acagtgtcat  
301 tattatggca tatgtactg gtggctgt acaacagact ttcgtgtt tgctaatct  
361 ttggcact actgtgaaa aactcaggcc tatacttggaa tggattggg cgaacatgg  
421 tgcaggagtt gaatttctca aggatgttgg ggagatttctca aaatttctca ttacagggt  
481 ttgttgcacatc gtcagggtc aaatacagggt tgcttgcgat aacatcaagg attgtgtaaa  
541 atgccttattt gatgtgtt acaaggact cgaatgtgc attgtatca tcactatcgc  
601 tggcgaag ttgegatcac tcaacttagg tgaatgttc atcgtcaaa gcaaggact  
661 ttacgtcag tgtatacgta gcaaggagca gctgcacta ctcatgcctc ttaaggcacc  
721 aaaagaagta acctttctt aagggtgatc acaatgacaca gtacttaccc ctgaggaggt  
781 tggatcaag aacggtaac tcaaggact cggagacccc gttgatgtt tcacaaatgg  
841 agtctcggtt ggcacaccag tctgtgtaaa tggcctcatg ctcttagaga ttaaggacaa  
901 agaacaatac tgcgtatgtt ctccctgggactt actggctaca aacaatgtct ttgccttaaa  
961 aggggtgtca ccaattaaag gtgttgcgat tggagaagat actgtttggg aagttcacagg  
1021 ttacaagaat gtggaaatca catgttgcgt tgatgttgcg tttgacaaag tgcctaatgg  
1081 aaagtgtct ctctacactg ttgaatccgg taccgaagtt actgtgttgc catgtgttgc  
1141 agcagaggctt gtgtgtt aacatccaacc agtttctgtat ctcccttacca acatgggtat  
1201 tgatgttgcgat gatgttgcgt tgacttacattt ctacttttgcg tttgatgttgcg tttgatgttgc  
1261 cttttcatca cgtatgttgc gtttgcgttgc cccatccatc gaggaagaag aggacatgt  
1321 agagtgtgag gaagaagaaa ttgtatggaaac ctgtgttgc gtttgcgttgc cccatccatc gaggaagaag  
1381 ttatcaagggtt ctcccttgcg aattttgtgc ctctatccatc acatgggtat  
1441 agaagaggaa gactggctgg atgtatcac ttttgcgttgc gtttgcgttgc cccatccatc gaggaagaag  
1501 acctacacccatc gaagaaccatc ttaatcgat ttttgcgttgc gtttgcgttgc cccatccatc gaggaagaag  
1561 tgccattaaa ttttgcgttgc cccatccatc acatgggtat  
1621 aaatgtgttgc acatcatcacc ttttgcgttgc gtttgcgttgc cccatccatc gaggaagaag  
1681 aaccaatgggtt gccatccatc acatgggtat  
1741 agtagggatggg ttttgcgttgc ttttgcgttgc ttttgcgttgc  
1801 tggacctaactt ctaatgcgttgc gtttgcgttgc cccatccatc gaggaagaag  
1861 caatttccatc acatgggtat  
1921 acatgggtatggg ttttgcgttgc ttttgcgttgc  
1981 tgacaaatgggtt ctttgcgttgc gtttgcgttgc cccatccatc gaggaagaag  
2041 ggaacccatc acatgggtatggg ttttgcgttgc ttttgcgttgc  
2101 ttttgcgttgc gtttgcgttgc cccatccatc gaggaagaag  
2161 cacaacactg acatgggtatggg ttttgcgttgc ttttgcgttgc  
2221 ttttgcgttgc ttttgcgttgc cccatccatc gaggaagaag  
2281 ggaggatggc ttttgcgttgc ttttgcgttgc  
2341 aataccctcc acatgggtatggg ttttgcgttgc ttttgcgttgc  
2401 gccatgggtatggg ttttgcgttgc ttttgcgttgc  
2461 ggaacccatc acatgggtatggg ttttgcgttgc ttttgcgttgc  
2521 acatgggtatggg ttttgcgttgc ttttgcgttgc  
2581 ttttgcgttgc ttttgcgttgc cccatccatc gaggaagaag  
2641 aaccatccatc acatgggtatggg ttttgcgttgc ttttgcgttgc  
2701 cccatccatc acatgggtatggg ttttgcgttgc ttttgcgttgc  
2761 ttttgcgttgc ttttgcgttgc cccatccatc gaggaagaag  
2821 agaggatggc ttttgcgttgc ttttgcgttgc  
2881 agatgggtatggg ttttgcgttgc ttttgcgttgc  
2941 ttttgcgttgc ttttgcgttgc cccatccatc gaggaagaag  
3001 tacagagtttgcgttgc ttttgcgttgc ttttgcgttgc

**Figure 14B**

3061 gagccccgtc gagtttcatc ttgacggta ggttcttca ctggacaaac taaagagtct  
3121 cttatccctg cgggaggta agactataaa agtgttcaca actgtggaca acactaatct  
3181 ccacacacag ctgtggata tgcttatgac atatggacag cagttggtc caacatactt  
3241 ggatgggtgc gatgttacaa aaattaaacc tcatgttaat catgaggta agactttctt  
3301 tgtactacct agtgatgaca cactacgtag tgaagcttc gaggtaatcc atactcttga  
3361 tgagagttt ctggtaggt acatgtctgc tttaaaccac acaaagaat gggaaattcc  
3421 tcaagttgggt ggttaactt caattaaatg ggctgataac aatttgttatt tgcttagtgt  
3481 ttatttagca ctcaacacgc ttgaagtcaa attcaatgca ccageacttc aagagg

**FIGURE 15A**

1 caaaataatg tgttcatgtc tgaggcaaaa tggactg agacigacct tactaaagga  
61 cctcacgaat ttgcicaca gcatacaatg ctgttaaac aaggagatga ttacgtgtac  
121 ctgccttacc cagatccatc aagaatatta ggcgcaggct gtittgtcga tcatattgtc  
181 aaaacagatg gtacacttat gattgaaagg ttcgtgtcac tggctattga tgcattacca  
241 cttacaaaac atccaatca ggagtgatgt gatgtcttc acttgttattt acaatacatt  
301 agaaagtatc atgatgagct taatggccac atgttggaca tgcattccgt aatgctaact  
361 aatgataaca ctcacggta ctgggaacct gagttttatg aggctatgtc cacaccat  
421 acagcttgc aggctgttag tgcgtgtca ttgtcaattt cacagacttc actcggttc  
481 ggtgcgtgtt ttaggagacc acctcaatgt tgcgtgtc gctatgacca tgcatttca  
541 acatcacaca aattatgtt gtcgttaat ccctatgtt gcaatcccc aggtgtgt  
601 gtcactgtatg tgacacaact gtatcttaga ggtatgtatg attattgcaaa gtcacataaag  
661 ctcaccaattt ttttcattt atgtgttaat ggcagggtt ttggtttata caaaaacaca  
721 tgcgttaggca gtgacaatgt cactgacttc aatgcgtatc caacatgttca ttggactaat  
781 gctggcgatt acatacttc caacactgtt actgagagac tcaagctttt cgacgcgaa  
841 acgctcaag ccactgagga aacatttaag ctgtcatatg gtattgccac tgcacgcgaa  
901 gtactcttc acagagaattt gcaatcttc tggagggtt gaaaacactt accaccattt  
961 aacagaaactt atgccttac tggttaccgtt gtaactaaaa atagtaaagt acagaitgg  
1021 ggttacaccc ttgaaaaagg tgactatgtt gatgtgttgc ttgacatctc acactgtat gcaacttagt  
1081 tacaatgtt atgttgggtt ttacttttgc ttgacatctc acactgtat gcaacttagt  
1141 gcacccatctc tagtgcaca agagcaactt gggagaattt ctggcttgc tccaacactc  
1201 aacatcttc atgatgtttt tagcaatgtt gcaatttttcaaaaaggctgg catgaaaag  
1261 tactctcacac tccaaggacc acctggactt ggttggactt atttgcattt cgacactgt  
1321 ctcttattacc catctgtcg catatgtt acggcatgt ctcatgcgc tgcgtatgt  
1381 ctatgtaaaaggcattttttt atatgtccca atagataat gtagttagat cttacactgc  
1441 cgtgcgcgcg tagatgtttt tgataaatttca aagtgttcaat cttacacttgc acatgtatgt  
1501 ttctgcactt taaatgcattt gcaagaaaca actgtgtaca ttgtgttgc ttgtgttgc  
1561 tctatggctt ctaattatgtt ctgtgtt gtcataatgtt gactgtgtc aaaaacttac  
1621 gcttatatttgcgcatcttc tcaattatcca gccccccgcatttgcgttgc taaaggcaca  
1681 cttagaaccatg aatatttttgc ttcgtgtc agacttgcattt gcaatcaatgg tccagacat  
1741 ttcttgaaat ttcgtgcgc tttgttgc tttgttgc gaaattgttgc acactgttgc tgcgttgc  
1801 tatgacaataa agctaaaaggc acacaaggag aagtcaatgttcaaaatgttcaat  
1861 aaagggtttttaatcatgtt gtttgcattt gcaatcaaca gaccaatgttcaat aggctgttgc  
1921 agagaatttttgc ttcacatgtt gcaatcaaca ttttttgc ttttttgc acacttataat  
1981 tcacagaacgc ctgtatgttcaaaaatgttca ggttttgc ttttttgc acactgttgc ttttttgc  
2041 cagggttgcg aatatgtactt ttttttgc ttttttgc acacttgc ttttttgc acactgttgc  
2101 aatgtcaacc gcttcatatg ggttcatatc aatgttgc ttttttgc ttttttgc acactgttgc  
2161 tctgtatgttgc atcttgcattt gcaatcaaca ttttttgc ttttttgc acactgttgc  
2221 gtttgcatttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2281 actgttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2341 gaaggatttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2401 tctatgtatgtt gtttgcattt gtttgcattt gtttgcattt gtttgcattt gtttgcattt  
2461 cgcgaagaag ctatgttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2521 gcaacttagatg atgttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2581 aactttagatg ctgttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2641 gtttgcatttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2701 ggttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2761 ggttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2821 aactttagatg ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2881 ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
2941 gtttgcatttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc  
3001 aaccatgttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc ttttttgc

## **FIGURE 15B**

**FIGURE 16**

**FIGURE 17**

## FIGURE 18A

### **FIGURE 18B**

2641 aaccatccaa cgtaagtata aaggagttaa aattcaagag ggcacatcggtt actatggtgt  
2701 ccgattcttc ttttatacta gtaaagagcc tgttagcttctt attattacga agctgaactc  
2761 tctaaatgag ccgcgtgtca caatgccaaat tggttatgtt acacatggtt ttaatcttga  
2821 agaggctgcg cgctgtatgc gttctttaaa agctcctgcc gtagtgcag tatcatcacc  
2881 agatgctgtt actacatata atggataacct cacttcgtca tcaaagacat ctgaggagca  
2941 cttagtagaa acagtttctt tggctggctt ttacagagat tggtccttatt caggacagcg  
3001 tacagagttt ggtgttgaat ttcttaagcg tggtgacaaa atttgttacc acaccctgga  
3061 gagccccgtc gagtttcatc ttgacgggtga ggttttca cttagacaac taaagagctt  
3121 ctatccctg cgggagggtt agactataaa agtgttcaca actgtggaca acactaatct  
3181 ccacacacag ctgtggata tgtctatgac atatggacag cagttggtc caacataactt  
3241 ggtatggtgct gatgttacaa aaattaaacc tcatgttaat catgagggtt agactttctt  
3301 tgtactacctt agtgtatgaca cactacgtt gtaagcttc gaggactacc atactcttga  
3361 tgagagttt ctggtaggtt acatgtctgc tttaaaccac acaaagaaat ggaaatttcc  
3421 tcaagttgggtt ggtttaactt caattaaatg ggctgataac aattgttatt tgtcttagt  
3481 ttatttagca cttcaacagc ttgaagtc aaattcaatgca ccagcacttc aagagg

**FIGURE 19**

1 cattacitaa tgatgccaac tacittgttt gctggcacac acataactat gactactgt  
61 taccatataa cagtgacaca gatacaattg tcgttactga aggtgacggc attcaacac  
121 caaaactcaa agaagactac caaattggtg gtattctga ggataggcac tcagggtta  
181 aagactatgt cggtgtacat ggctatttca cgaaagtta ctaccagttt gagctcac  
241 aaattactac aaacactggt attgaaaatg ctacattttt catcttaac aagcttgtt  
301 aagacccacc gaatgtcaa atacacacaa tcgacggc tcaggagtt gtaatccag  
361 caatggatcc aatttatgt gagccgacga cgactactag cgtgccttg taagcacaag  
421 aaatgtggta cgaactatg tactcattcg ttccgaga aacaggtacg ttaatagtta  
481 atagctact tctttttttt gccttcgtgg tattcttgtt agtacacacta gccatctta  
541 ctgcgttcg attgtgtcg tactgtcga atatgttaa cgtgagtttta gtaaaaaccaa  
601 cggtttacgt ctactcgcgt gttaaaaatc tgaactctcc tgaaggagttt cctgatctt  
661 tggctaaac gaactaacta ttattattat tctgttttggaa actttaacat tgcttatcat  
721 ggcagacaac ggtacttata ccgttgagga gcttaacaa ctccctggaa aatggAACCT  
781 agtaataggtt ttcctattcc tagectggat tatgttacta caatttgctt attctaatcg  
841 gaacaggttt ttgtacataa taaagctgtt ttccctctgg ctcttgccg cagtaacact  
901 tgctttttt gtcgttgcgt ctgttacag aattaattgg gtgactggcg ggattgcgt  
961 tgcattggct tttatgttag gcttggatgtt gcttagtac ttcgttgctt cttcaggct  
1021 gtttgcgtt acccgctcaa tttttttttt caacccggaa acaaaccattt tttccaaatgt  
1081 gcccctccgg gggacaatttgg tggatggacc gctcatggaa agtgaacttgc tcattggc  
1141 tgtgtatattt cgtggtcact tggatggc cggacactcc ctaggcgtt gtgacattaa  
1201 ggacctgcctt aagagatca ctgtggctt acacgcacg ctttttttt acaaatttgg  
1261 agcgtcgcag ctgttggca ctgttggcatttttgcataaccgctt accgttttgg  
1321 aaactataaa ttttttttttccgg accacggccgg tagcaacgc aatattgtt tgctgtaca  
1381 gtaatgtaca acatgtttt catcttgtt acitccaggat tacaatagca gagatattga  
1441 ttatcattt gaggacttgc aggattgtt tttggatct tgacgttata ataagtccaa  
1501 tagtgagaca attatttaag cctcttaacta agaagaattt ttccggatgtt gatgttgg  
1561 aacctatggg gtttttttttccgg aacatggaaa ttatctttt cctgacatttgc  
1621 attgttttta catcttgca gcttatatttttac ttttttttttgcatttgcatttgcatttgc  
1681 ctactaaaatggg aaccccttgcctt atcagcaaca ttttttttttgcatttgcatttgcatttgc  
1741 gtttttttttgcatttgcatttgcatttgcatttgcatttgcatttgcatttgcatttgcatttgc  
1801 g

## FIGURE 20

**FIGURE 21 (A)**

1 agtttttat tagcacttca acagcttcaa gtcaattca atgcaccagg acttcaagag  
61 gcttattata gagcccggtgc tggatgatgtc gctaactttt gtgcactcat actcgcttac  
121 agtaaaaaa ctgtggcga gcttgggtat gtcaagagaaa ctatgaccca tcttcacag  
181 catgtaattt tggaaatctgc aaagcgagtt cttatgtgg tggtaaaca ttgtggicag  
241 aaaactacta ctttaacggg tggatgtatgtc tgggtactct atctttagat  
301 aatcttaaga cagggtttc cattccatgt gtgtgtgtc gtgtatgtac acaaatctt  
361 gtacaacaag agtcttctt tggatgtatgtc tggcaccac ctgttgatgt taaaattacag  
421 caaggtatctt tggatgtc gaatgatgtac actggtaact atcagtgtgg tcattacact  
481 catataactg ctaaggagac cttctatgtt atggcggag ctacccatca aaaaatgtca  
541 gatcacaag gaccaggatgtac tgatgttttca aaggaaa catcttacac tacaaccatc  
601 aagcctgtgt cgttataact cgatggagtt acttacacag agatgttgc aaaaattggat  
661 gggattata aaaaaggatata tgcttactat acagagcgc ctatagacct tggatgttgc  
721 caaccattac caaatgtcgat tttgtataat ttcaactca catgttcaaa cacaattt  
781 gctgtatgtttaatcaat gagaggatgtc acaagcgc acaagcgc ctacacgatgt  
841 acattcttcc cagacttgc tggatgtatgtc tggatgttgc actatagaca ctatcagcg  
901 agttcaaga aagggtctaa attactgtatgtc aaggcaatig tttggcacat taaccaggct  
961 acaaccaaga caacgttca accaaacact tggatgttttca gttgttttgc ggttacaaag  
1021 ccagtagata ctccaaattt atttgttgc tggatgtatgtc aagacacaca aggaatggc  
1081 aatcttgc tggatgtatgtc acaacccacc tctgttgc aagatgttgc tagtggaaa ttctaccata  
1141 cagaaggaaatgttgc tcatgttgc tggatgtatgtc aactaccgaatgttgc tttttttt  
1201 aaaccatcg atgaaaggatgttgc taaatgttgc aagatgttgc ttttttttgc  
1261 gcttattatgttgc aaaaacacaag cattaccatt aagaaacacta atgatgttgc actatgttgc  
1321 ggtttaaaaaa caattgttgc tcatgttgc tggatgtatgtc atatgttgc ttggatgttgc  
1381 atttttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1441 aagagatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1501 caattgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1561 attgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1621 gtgtatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1681 atttttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1741 ggttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1801 actatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1861 ctgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1921 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
1981 ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2041 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2101 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2161 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2221 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2281 gcaatggatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2341 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2401 aaaaacccatca ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2461 aatggcgatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2521 ctctccatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2581 attatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2641 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2701 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2761 ttgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2821 agtgcgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2881 cgacaaaggatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
2941 tcacatcttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc  
3001 aataaggatgttgc ttttttttgc aatgttgc ttttttttgc aatgttgc ttttttttgc

**FIGURE 21 (B)**

3061 catatcaatg cccaaggtagc aaaaagtcac aatgttgcac tcacatggaa tgtaaaagac  
3121 tacatgtctt tatactgaaca gctgcgtaaa caaatcgta gtgcgtccaa gaagaacaac  
3181 ataccttta gactaacttg tgctacaact agacagggtg tcaatgtcat aactactaaa  
3241 atctcactca agggtgttaa gattgttagt actitgtttta aactttagtct taaggccaca  
3301 ttatttgcg ttcctgtc attgggttatactgtt tgccagtgaca tacattgtca  
3361 atccatgtatg gttacacaaa tgaatcattt ggttacaaaag ccattcagga tgggtgtcact  
3421 cgtgacatca ttctactga tgattgtttt gcaaataaac atgctggttt tgacgcatgg  
3481 tttagccagc gtggtgttca atacaaaaaa gacaaaagct gccctgttagt agctgctatc  
3541 attacaagag agatgggtt catatgtcct ggcttaccgg gtactgtgtc gagagcaatc  
3601 aatggtgact tcttgcattt tctacccgtt gtttttagt ctgttggcaa catttgcac  
3661 acacccttcca aactcattga gtatagtat tttgttaccc tctgttgcgt tcttgcgt  
3721 gagtgttacaa tttttaagga tgcataggc aaacctgtgc catattgtta tgacactaat  
3781 ttgcgttgcagg gttcttattt ttatagttagt ctgcgtccag acactcgta tggtgtttag  
3841 gatggttcca tcatacattt ccctaaacact tacctggagg gttctgttagt agtagtaaca  
3901 acctttgtatg ctgagttactg tagacatgtt acatgcggaa ggtcagaagt aggtatttgc  
3961 ctatctacca gtggtagatg ggttcttaat aatgagcattt acagagctt atcaggagtt  
4021 ttctgtggtg ttgtatgtcattt gtaatcatactt tttttttttt tttttttttt tttttttttt  
4081 gtgggtgtt tagatgtgtc tgcttcagta gtggctgggtg gtattattgtc catattgggt  
4141 actttgtgtc cttactactt tatggaaatttcc agacgtgtttt ttggtagtca accatgtt  
4201 gtgtgtgtca atgcactttt gttttttttt tttttttttt tttttttttt tttttttttt  
4261 tacagtttc tgccgggagttt ctactcagttt tttttttttt tttttttttt tttttttttt  
4321 aatgtatgtttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4381 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4441 aacaactatc tttagaaaaag agtcatgtttt aatggaggta cattttttttt tttttttttt  
4501 gtcgtttttt gtcacaacaag gaaatgtacc taaaatttgcg tagcggagaca  
4561 ctgttgcac ttacacagta taacaggtat tttttttttt tttttttttt tttttttttt  
4621 agtggaggccctt tagatactac cagttttttt tttttttttt tttttttttt tttttttttt  
4681 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4741 acattttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4801 ggggtgttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4861 acatgtttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4921 gaagatctgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4981 ctgttgcac ttacacagta taacaggtat tttttttttt tttttttttt tttttttttt  
5041 aaccctttaaga caccctaaatgta taaaattttttt tttttttttt tttttttttt tttttttttt  
5101 cttagcatgtc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5161 accattttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5221 gattttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5281 accgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5341 ggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5401 ggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5461 atgaatgtttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5521 gtcacatgtttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5581 ggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5641 gatgtttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5701 ggcacttacatgtttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5761 acacatgtttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5821 attatggcaat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5881 ttgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5941 agtgggggtttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
6001 aggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
6061 cgccactttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt

**FIGURE 21 (C)**

### **FIGURE 21 (D)**

9241 tcagttcaa ggaacttta gtgtatgctg ctgatccagc tatgcattca gcttcggca  
9301 atttattgct agataaacgc actacatgct ttcatgtgc tgcactaaca aacaatgttg  
9361 ctttcaaac tgtcaaaccg ggtaattta ataaagactt ttatgacttt gctgtgtcta  
9421 aaggttctt taaggagga agtctgttg aactaaaaca ctcttcctt gtcaggatg  
9481 gcaacgctgc tatcatgtat tatgactatt atcgtaatac tctccaaaca atgtgtata  
9541 tcagacaact cctatcgta gttgaagttt ttgataataa ctttgcattgt tacgtggtg  
9601 gctgtattaa tgccaaacca gtaatcgta acaatcgta taaatcagct ggttcccat  
9661 ttaataaaatg gggtaaggtt agactttt atgactcaat gagttatgag gatcaagatg  
9721 cactttcgc gtataactaag cgtaatgtca tccctactat aactcaaatg aatcttaagt  
9781 atgccattag tgcaaagaat agagctcgca ccgttagctgg tgtctctatc tgtagtacta  
9841 tgacaaatag acagttcat cagaaatatt tgaatcgtaa agccggact agaggagcta  
9901 ctgtgtaat tggacaacaaggc aagttttacg gttggatataa tccaaatgtt gacagagcca  
9961 acatgtatg agaaactcca caccttatgg gttggatataa tccaaatgtt gacagagcca  
10021 tgccttaacat gcttaggata atggcctctc ttgtcttgc tcgcaaaacat aacacttgc  
10081 gtaacttatac acaccgttacaggttag ctaacgagtg tgcccaagta ttaagtgaga  
10141 tggcatgtg tggcggtca ctataftta aaccagggtgg aacatcatcc ggtgtatgcta  
10201 caactgttta tgctaatagt gtcttaaca ttgtcaagc tgcacagcc aatgtaaatg  
10261 cactcttc aactgtatgtt aataagatag ctgacaagta tgccgcaat ctacaacaca  
10321 ggctctatga gtgtcttat agaaataggg atgtgtatca tgaattcggt gatgagttt  
10381 acgttacctt gctaaacat ttctccatga tgattcttc tgatgtgcc gttgtgtgct  
10441 ataacagtaa ctatcggttca caagggttag tagcttagcat taagaactt aaggcagttc  
10501 ttattatca aaataatgtt ttcatgtcg aggcaaaatg ttggac

**FIGURE 22**

1 gtacccat gaaggcacc aaactgctgc atttagagac gtacttgtt ttttaataaa  
61 acgaacaat taaaatgtct gataatggac cccaatcaaa ccaacgtagt gcccccgc  
121 ttacattgg tggaccaca gattcaactg acaataacca gaatggagga cgcaatgggg  
181 caaggccaaa acagcgccga ccccaagggtt tacccaataa tactgcgtct tggttcacag  
241 ctctcacca gcatggcaag gaggaactt aattccctcg aggccaggc gttccatatca  
301 acaccaatag tggccagat gaccaaattg gctactaccg aagagctacc cgacgagttc  
361 gtgggtgtga cggccaaatg aaagagctca gccccagatg gtttttat taccttagaa  
421 ctggccaga agtttcaactt ccctacggcg ctaacaaaga aggcatcgta tgggttgcaa  
481 ctgagggagc ctgtataaca cccaaagacc acattggcac ccgcaatctt aataacaatg  
541 ctgcaccgt gctacaactt cctcaaggaa caacattgcc aaaaggcttc tacgcagagg  
601 gaagcagagg cggcagtcaa gccttctc gtccttcac acgttagtcgc ggtaattcaa  
661 gaaattcaac tcctggcagc agtagggaa atttccttc tcaatggct agcggaggtt  
721 gtgaaactgc cctcgcgtta ttgtgtctag acagattgaa ccagcttgag agcaaagttt  
781 ctggtaaagg ccaacaacaa caaggccaaa ctgtcactaa gaaatctgt gtcggcat  
841 ctaaaaagcc tcgccaaaaaa cgtactgcca caaaacagta caacgtcact caagcattt  
901 ggagacgttccagaacaa acccaaggaa atttcgggaa ccaagaccta atcagacaag  
961 gaactgatta caaacattgg ccgcaatgg cacaatttgc tccaagtgcc tctgcattct  
1021 ttggaatgtc acgcattggc atgaaagtca cacccctcgaa acatggctg acttatcatg  
1081 gagccattaa attggatgac aaagatccac aattcaaaaga caacgtcata ctgtgaaca  
1141 agcacattga cgcataacaa acattccac caacagagcc taaaaggac aaaaagaaaa  
1201 agactgtga agtcgcct ttggccgaga gacaaaagaa cgagccact gtgactcttc  
1261 ttcctgcggc tgacatggat gattctcca gacaacttca aattccatg agtggagctt  
1321 ctgcgtattc aactcaggca taaaactca tggatggacc acaggcaga tggctatgt  
1381 aaacgtttc gcaattccgtt acgtataca tagtctactt ttgtgcagaa tgaattctcg  
1441 taactaaaca gcacaagtag gtttagttaa cttaatctc acatagcaat cttaatcaa  
1501 tgttaacat tagggaggac ttggaaagagc caccacattt tcatcgaggc cacggggag  
1561 acgtcgagg gtacagtggaa taatgttggag gagagctgcc tatatggaa agccctaattt

**FIGURE 23**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNNGGRNGARPQRRPQGLPNNTASWFTALTQHGKEEL  
RFPRGQGVPIINTNSGPDDQIGYYRRAVRRVRGGDGKMKELSPRWYFYYLGTGPEASLPYGANKEG  
IVWVATEGALNTPKDHIIGTRNPNNNAATVLQLPQGTTLPKGFYAEGSRGGSQASSRSSSRSGNS  
RNSTPGSSRGNSPARMASGGGETALALLLDRLNQLESKVSGKGQQQQGQTVTKSAAEASKKPR  
QKRTATKQYNVTQAFGRRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEV  
TPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQ  
PTVTLLPAADMDDFSRQLQNSMSGASADSTQA

**Figure 24**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPQKQRRPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYLGTPGPEASLPYGANKEGIVVWATEGALNTPKDHIGHTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

**FIGURE 25**

**(A)**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPQKRRPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYYLGTGPEASLPYGANKEGIVVWATEGALNTPKDHIGHTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATKQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEAAPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

**(B)**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPQKRRPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYYLGTGPEASLPYGANKEGIVVWATEGALNTPKDHIGHTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATKQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEAAPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

**FIGURE 26**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPQKRRPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYYLGTGPEASLPYGANKEGIVVWATEGALNTPKDHI GTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATKQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 27

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPD  
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGVW  
FGSTMNNKSQS VII INNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMIFDNAFNCT  
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFPLYVYKGYQPIDVVRDLPSGFNTLKP  
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVGYLKPTTFMLKYDENGTTDAV  
DCSQNPLAELKCSVKSFEIDKGIYQTSNFRVVPSGDVVRFPNITNLCPFGEVFNATKF  
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD  
DVRQIAPGQTGVIADYNKLPDDFMGCVLAWNTRNIDATSTGNYNYKYRYLRHGKLRP  
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTGIGYQPYRVVVLSELLENAPA  
TVCGPLKLSTDLIKNQCVNFNFNGLTGTGVLTSSKRFQPFQQFGRDVSDFDSVRDPK  
TSEILDISPCSFGGSVITPGTNASSEAVLYQDVNCTDVSTAIHADQLTPAWRIYST  
GNNVFQTQAGCLIGAEHVDTSYECDIPIGAGICASYHTVSLRSTSQKSIVAYTMSLG  
ADSSIAYSNNNTIAIPNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS  
FACTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYGFFNFSQILPDPLKPTKRS  
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLLTDDMIAAYT  
AALVSGTATAGWTGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS  
QIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRLDKVEAE  
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDGKGYH  
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAIACHEGKAYFPREGVFVNGTSWFITQ  
RNFFSPQIITTDNTFVSGNCVVIGIINNTVYDPLQPELDSFKEELDKYFKNHTSPDV  
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA  
GLIAIVMV TILLCCMTSCSCLKGACSCGSCCKFDEDDSEPVLKGVKLHYT

**FIGURE 28**

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPD  
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGWV  
FGSTMNNKSQSVIIINNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMIFDNAFNCT  
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFPLYVYKGYQPIDVVRDLPSGFNTLKP  
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVGYLKPTTFMLKYDENGTTDAV  
DCSQNPLAELKCSVKSFEIDKGIYQTSNFRVVPSGDVVRFPNITNLCPFGEVFNATKF  
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD  
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTRNIDATSTGNYNKYRYLRHGKLRP  
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTGIGYQPYRVVVLSELLENAPA  
TVCGPKLSTDLIKNQCVNFNFNGLTGTGVLTSSKRFQPFQQFGRDVSDFTDSVRDPK  
TSEILDISPACFGGSVITPGTNASSEAVLYQDVNCTDVSTAIHADQLTPAWRIYST  
GNNVFQTQAGCLIGAEHVDTSYECDIPIGAGICASYHTSLLRSTSQKSIVAYTMSLG  
ADSSIAYSNNNTIAIPNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS  
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKPTLKYGFFNFSQILPDPLKPTKRS  
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLTDIMIAAYT  
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS  
QIQESLTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRLDKVEAE  
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDGKGYH  
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAIACHEGKAYFPREGVFVNGTSWFITQ  
RNFFSPQIITTDNTFVSGNCVVIGIINNTVYDPLQPELDSKEELDKYFKNHTSPDV  
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA  
GLIAIVMV TILLCCMTSCSCLKGACSCGSCCKFDEDDSEPVVLKGVLHYT

**FIGURE 29**

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPD  
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGWV  
FGSTMNNKSQS VII ISNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMIFDNAFNCT  
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGSLYVYKGYQPIDVVRLPSGFNTLKP  
IFKLPLGINITNFRAILTAFPSA QDIWGTSAAYFVGYLKPTTFMLKYDENGTTDAV  
DCSQNPLAELKCSVKSFEIDKG IYQTSNFRVVPNGDVVRFPNITNLCPFGEVFNATKF  
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD  
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTGNIDATSTGNYDYKYRYLRHGKL RP  
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTGIGYQPYRVVVL SFELLNAPA  
TVCGPKLSTD LIKNQCVNFNFNGLTGTGVLPSSKRFQPFQQFGRDVSDFTDSVRDPK  
TSEILDISPCSFGGVSVITPGTNASSEAVLYQDVNCTDVSTAIHADQLTPAWRIYST  
GNNVFQTQAGCLIGAEHVDTSYECDIPIGAGICASYHTVSLRSTSQKSIVAYTMSLG  
ADSSIAYSNN TIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS  
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLK YFGGFNFSQILPDPLKPTKRS  
FIEDLPFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLL TDDMIAAYT  
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS  
QIQESLTTSTALGKLQDVVNQNAQALNTLVQLSSNFGAISSVLNDILSRLDKVEAE  
VQIDRLITGRLQSLQTYVTQQLIRAAGIRASANLAATKMSECVLGQSKRVD FCGKGYH  
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAI CHECKAYFPREGVFVNGTSWFITQ  
RNFFSPQI ITTDNTFVSGNCVVIGI INNTVYDPLQPELDSFKEELDKYFKNHTSPDV  
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA  
GLIAIVMV TILLCCMTSCSCLKGACSCGSCCKFDEDDSEPV LKGVLHYT

**FIGURE 30**

(A)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNRNR  
LYIIKLVFLWLLWPVTLACFVLAAVYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF  
ARTRSMWSFNPETNILLNVPLRGТИVTRPLMESELVIGAVIIRGHLRMAGHPLGRCDI  
KDLPKEITVATSRTLSYYKLGASQRVGTDMSGFAAYNRYRIGNYKLNTDHAGSNDNIAL  
LVQ

(B)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNRNR  
LYIIKLVFLWLLWPVTLACFVLAAVYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF  
ARTRSMWSFNPETNILLNVPLRGТИVTRPLMESELVIGAVIIRGHLRMAGHSLGRCDI  
KDLPKEITVATSRTLSYYKLGASQRVGTDMSGFAAYNRYRIGNYKLNTDHAGSNDNIAL  
LVQ

(C)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNRNR  
LYIIKLVFLWLLWPVTLACFVLAAVYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF  
ARTRSMWSFNPETNILPNVPLRGТИVTRPLMESELVIGAVIIRGHLRMAGHSLGRCDI  
KDLPKEITVATSRTLSYYKLGASQRVGTDMSGFAAYNRYRIGNYKLNTDHAGSNDNIAL  
LVQ

(D)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNRNR  
LYIIKLVFLWLLWPVTLACFVLAAVYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF  
ARTRSMWSFNPETNILPNVPLRGТИVTRPLMESELVIGAVIIRGHLRMAGHSLGRCDI  
KDLPKEITVATSRTLSYYKLGASQRVGTDMSGFAAYNRYRIGNYKLNTDHAGSNDNIAL  
LVQ

**FIGURE 31**

**(A)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

**(B)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

**(C)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSPEGVPDLLV

**(D)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSPEGVPDLLV

**(E)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

**FIGURE 32 (A)**

MESVLGVNEKTHVQLSLPVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLQPQEOPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRLNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP  
LNSKVVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTRCFGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIIVGDFHLNEEVAIILASFSASTSAFIDTIKSLSFYKSFKTIVESCGN  
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIIRSIFARTLDAANHSIPDLQRAA  
VTILDGISEQSLRLVDAMVYTSDLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL  
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV  
NKALEMCIDQVTIAGAKLRSNLGEVFIAQSCKGLYRQCIRGKEQLQLLMPLKAPKEVT  
FLEGDSHDTVLTSEEVVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLLEIKDKEQ  
YCALS PGLLATNNVFRWKGGAPIKGVTFGEDTVWEVQGYKNVRITFELDERVDKVLNE  
KCSVYTVESGTEVTEFACVVAEAVVKTLPVSDLLTNMGIDLDEWSVATFYLFDAGE  
ENFSSRMYCSFYPPDEEEEDDAECEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR  
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTNDNAIKCVDIVKEAQSA  
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL  
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQLQCVQQT  
VRTQVYIAVNDKALYEQVVMMDYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV  
KPKIKACIDEVTTLEETKFLTNKLLLFA DINGKLYHDSQNMLRGEDMSFLEKDAPYM  
VGDVITSGDIITCVVIPSKKAGGTTEMLSRALKKVPDEYITTYPGQGCAGYTLEEAKT  
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI  
QRKYKGIKIQEGIVDYGVRFYYTSKEPVASIITKLNSLNEPLVTMPIGYVTHGFNLE  
EAARCMRSLKAPAVSVSSPDAVTTYNGYLTSKSEEHFVETVSLAGSYRDWSYSG

FIGURE 32 (B)

QRTELGVFLKRGDKIVYHTLESPVEFHLDGEVLSLDKLKSLLSLREVKTIVFTTVD  
NTNLHTQLVDMMSMTYGQQFGPTYLDGADVTKIKPHVNHEGKTFVLPSSDTLRSEAFE  
YYHTLDESFLGRYMSALNHTKKWFQPVGGLTSIKWADNNCYLSSVLLALQQLEVKFN  
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHLLQHANLESAKRVLN  
VVCKHCGQKTTLTGVEAVMYMGTLSYDNLKTGVSIPCVCGRDATQYLVQQESSFVMM  
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPVTD  
VFYKETSYTTIKPVSYKLDGVTYTEIEPKLDGYYKKDNAYYTEQPIDLVPTQPLPNA  
SFDFNFKLTCNSNTKFADDLNQMTGFTKPASRELSVTFFPDNGDVVAIDYRHYSASFKK  
GAKLLHKPIVWHINQATTKTFKPNTWCLRCLWSTKPVDTNSFEVLAVENTDQGMNDL  
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVVGNVILKPSDEGVKVTQELGHEDLMA  
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN  
CAKRLAQRFVNYYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIAKNSVKSVALCLDA  
GINYVKSPKFSKLFITIAMWLLLLSICLGSPLICVTAAGVLLSNFGAPSYCNGVRELYL  
NSSNVTTMDFCEGSFPSICLSGLDSLDSPALETIQVTISSYKLDLTILGLAAEWVL  
AYMLFTKFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF  
ASFYYIWKSYVHIMDGCTSSTCMMCYKRNRATRVECTTIVNGMKRSFYVYANGGRGFC  
KTHNWNCNCDFCTGSTFISDEVARDLSQLFKRPINPTDQSSYIVDSAVKNGALHL  
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPININVFDGKSKCDESASKSASVYY  
SQLMCQPILLLQVLVSDVGDSTEVSVMFDAYVDTFSATFSVPMEKLKALVATAHSE  
LAKGVALDGVLSTFVSAARQGVVDTDVDTKDVECLKLHSDEVTGDSCNNFMLTY  
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMMSLSEQLRKQIRSAAKK  
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKMLKATLLCVLAALVCYIVMPV  
HTLSIHGYTNEIIIGYKAIQDGVRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC  
PVVAAITREIGFIVPGLPGTVLRAINGDFLHFLPRVFSAVGNICYTPSKLIEYSDFA  
TSACVLAECTIFKDAMGKPVPCYDTNLLEGSISYSELRPDTRYVLMGSIIQFPNT  
YLEGSVRVVTTFDAEYCRHGTGERSEVGICLSTS GRWVLNNEHYRALSGVFCGV DAMN

FIGURE 32 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFRRVFGEYNHVVAANAL  
LFLMSFTILCLVPAYSFLPGVYSVFYLYLTFTNDVSFLAHLQWFAMFSPIVPFWIT  
AIYVFCISLKHCHWFFNNYLRKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRSETLL  
PLTQYNRYLALYNKYKYFSGALDTTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI  
TSAVLQSGFRKMAFPNGKVEGCMVQVTCGTTLNGWLDDTVYCPRHVICTAEDMLNP  
NYEDLLIRKSNSHSLVQAGNVQLRVIHGSMQNCLLRLKVDTSNPKTPKYKFVRIQPGQ  
TFSVLACYNGSPSGVYQCAMPNHTIKGSFLNGSCGVFNIDYDCVSFCYMHHMELP  
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNVLAWLAAVINGDRWFLNRFTTT  
LNDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS  
TILEDEFTPFDVVRQCSGVTFQGKFKKIVKGTHHWMLTFLTSLILVQSTQWSLFFF  
VYENAFLPFTLGIMAIAACAMLLVKHKHAFLCLFLPSLATVAYFNMVYMPASWVMRI  
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVITLVYKV  
YYGNALDQAIISMWALVISVTSNYSGVVTTIMFLARAIVFVCVEYYPLLFITGNTLQCI  
MLVYCFGLGYCCCCYFGLFCLLNRYFRRTLGVYDYLVSTQEFRYMSQGLLPPKSSIDA  
FKLNKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH  
NDILLAKDTTEAFEKMSLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS  
YAAYATAQEAYEQAVANGDSEVVLKKLKSLNVAKSEFDRDAAMQRKLEKMDQAMTQ  
MYKQARSEDKRAKVTSAMQTMLFTMLRKLDNDALNNIINNARDGCVPLNIIPLTAAK  
LMVVVPDYGTYKNTCDGNTFTYASALWEIQQVVDADSKIVQLSEINMDNSPNLAWPLI  
VTALRANSAVKLQNNELSPVALRQMSCAAGTTQACTDDNALAYYNNSKGGRFVLALL  
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGNNLNRMV  
GSLAATVRLQAGNATEVPANSTVLSFCFAVDPAKAYKDYLASGGQPITNCVKMLCTH  
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND  
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFLNGFAV

FIGURE 33 (A)

MESLVLGVNEKTHVQLSLPVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLQPQECPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRLNGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP  
LNSKVVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTFCGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIIVGDFHLNEEVAILLASFSASTSAFIDTIKSLDYKSFKTIVESCGN  
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIRSIFARTLDAANHSIPDLQRAA  
VTILDGISEQSLRLVDAMVYTSDLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL  
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV  
NKALEMCIDQVTIAGAKLRSNLGEVFIAQSCKGLYRQCIRGKEQLQLLMPLKAPKEVT  
FLEGDSHDTVLTSEEVVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLLEIKDKEQ  
YCALSPLLATNNVFRULKGGAPIKGVTGEDTVWEVQGYKNVRITFELDERVDKVLNE  
KCSVYTVESGTEVTEFACVVAEAVVKTLPVSDLLTNMGIDLDEWSVATFYLFDLAGE  
ENFSSRMYCSFYPPDEEEEDDAECEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR  
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTNDNAIKCVDIVKEAQSA  
NPMVIVNAANIHLKHGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL  
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQLQCVQQT  
VRTQVYIAVNDKALYEQVVMYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV  
KPKIKACIDEVTTLEETKFINTKLLLADINGKLYHDSQNMLRGEDMSFLEKDAPYM  
VGDVITSGDIRCVVIPSKKAGGTTEMLSRALKKVPVDEYITTYPGQGCAGYTLLEEAKT  
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI  
QRKYKGIKIQEGIVDYGVRFFFYTSKEPVASIITKLNSLNEPLVTMPIGYVTHGFNLE  
EAARCMRSLKAPAVVSVSSPDAVTTYNGYLTSSSKTSEEHFVETVSLAGSYRDWSYSG

FIGURE 33 (B)

QRTELGVFALKRGDKIVYHTLESPVEFHLDGEVLSLDKLKSLLSLREVKTIKVFTTVD  
NTNLHTQLVDMMSMTYQQQFGPTYLDGADVTKIKPHVNHEGKTFVLPSSDTLRSEAFE  
YYHTLDESFLGRYMSALNHTKKWFHQVGGLTSIKWADNNCYLSSVLLALQQLEVKFN  
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHLLQHANLESAKRVLN  
VVCKHCGQKTTLTGVEAVMYMGTLSYDNLKTGVSIPCVCGRDATQYLVQQESSFVMM  
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPVTD  
VFYKETSYTTIKPVSYKLDGVTYTEIEPKLDGYKKDNAYYTEQPIDLVPTQPLPNA  
SFDFNFKLTCNSNTKFADDLNQMTGFTKPASRELSVTFFPDNGDVVAIDYRHYSASFKK  
GAKLLHKPIVWHINQATTKTFKPNTWCLRCLWSTKPVDTNSFEVLAVEDTQGMDNL  
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVGNVILKPSDEGVKVTQELGHEDLMA  
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITSN  
CAKRLAQRFVNYYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIAKNSVKSVALCLDA  
GINYVKSPKFSKLFITIAMWLLLLSICLGSPLICVTAAGVLLSNFGAPSYCNGVRELYL  
NSSNVTTMDFCEGSFPSICLSGLDSLDSPALETIQVTISSYKLDLTIIGLAAEWVL  
AYMLFTKFFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF  
ASFYYIWKSYVHIMDGCTSSTCMCYKRNRATRVECTTIVNGMKRSFYVYANGGRGFC  
KTHNWNCNCDFCTGSTFISDEVARDLSQLFKRPINPTDQSSYIVDSAVKNGALHL  
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPININVFDGKSKCDESASKSASVYY  
SQLMCQPILLLQALVSDVGDSTEVSVMFDAYVDTFSATFSVPMEKLKALVATAHSE  
LAKGVALDGVLSTFVSAARQGVVDTDVDTKDVIIECLKLHSDEVTGDSCNNFMLTY  
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNWKDYMSLSEQLRKQIRSAAKK  
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKMLKATLLCVLAALVCYIVMPV  
HTLSIHGYTNEIIIGYKAIQDGVTRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC  
PVVAAIITREIGFIVPGLPGTVLRAINGDFLHFPLPRVFSAVGNICYTPSKLIEYSDFA  
TSACVLAECTIFKDAMGKPVPCYDTNLLEGSISYSELRPDTRYVLMGSIIQFPNT  
YLEGSVRVVTTFDAEYCRHGTGERSEVGICLSTSGRWVLNNEHYRALSGVFCGVDAZN

FIGURE 33 (C)

LIANIFTPLVQPGALDVSASVVAGGIIAILVTCAAYYFMKFRRVGEYNHVVAANAL  
LFLMSFTILCLVPAYSFLPGVYSVFYLYLTFTNDVSFLAHLQWFAMFSPIVPFWIT  
AIYVFCISLKCHWFFNNYLRKRVMFNGVTFSTFEEALCTFLLNKEMYLCLRSETLL  
PLTQYNRYLALYNKYKYFSGALDTTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI  
TSAVLQSGFRKMAFPSKGVEGCMVQVTCGTTLNGLWLDDTVYCPRHVICTAEDMLNP  
NYEDLLIRKSNSHSLVQAGNVQLRVIHGSMQNCLRLKVDTSNPKTPKYKFVRIQPGQ  
TFSVLACYNGSPSGVYQCAMPNHTIKGSFLNGSCGSVGFNIDYDCVSFCYMHHMELP  
TGVHAGTDLEGKFYGPFDVRTQTAQAAGTDTTITLNVLAWLAAVINGDRWFLNRFTTT  
LNDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS  
TILEDEFTPFDVVRQCSGVTQGFKKIVKGTHHWMLLTFLTSLLILVQSTQWSLFFF  
VYENAFLPFTLGIMAIAACAMLLVKHKHAFLCLFLLPSLATVAYFNMVYMPASWVMRI  
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVITLVYKV  
YYGNALDQAISMWALVISVTSNYSGVVTTIMFLARAIVFVCVEYYPLLFITGNTLQCI  
MLVYCFGLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSTQEFRYMQNSQGLLPPKSSIDA  
FKLNKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH  
NDILLAKDTTEAFEKMSLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS  
YAAYATAQEAYEQAVANGDSEVVLKKLKKSLNVAKSEFDRDAAMQRKLEKMAQAMTQ  
MYKQARSEDKRAKVTSAMQTMLFTMLRKLDNDALNNIINNARDGCVPLNIIPLTAAK  
LMVVVPDYGYKNTCDGNTFTYASALWEIQQVVDADSKIVQLSEINMDNSPNLAWPLI  
VTALRANSAVKLQNNELSPVALRQMSCAAGTTQACTDDNALAYYNNSKGGRFVLALL  
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGMLNLRGMVL  
GSLAATVRLQAGNATEVPANSTVLSFCAFADPAKAYKDYLASGGQPITNCVKMLCTH  
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND  
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFFKRVCGVSAARLTPCGTG  
TSTDVVYRAFDIYNEKVAGFAKFLKTNCRFQEKEDEEGNLLDSYFVVKRHTMSNYQHE

FIGURE 33 (D)

ETIYNLVKDCPAVAVHDFFKFRVDGDMVPHISRQLTKYTMADLVYALRHFDEGNCDT  
LKEILVTYNCCDDDYFNKKDWYDFVENPDILRVYANLGERVRQSLLKTVQFC DAMRDA  
GIVGVLTLDNQDLNGNWYDFGDFVQVAPCGVPIVDSYYSLMPILTTRALAAESHM  
DADLAKPLIKWDLLKYDFTEERLCLFDTRYFKYWDQTYHPNCINCLDDRCILHCANFNV  
LFSTVFPPSTSFGPLVRKIFVDGVPVVSTGYHFRELGVHNQDVNLHSSRLSF KELLV  
YAADPAMHAASGNLLLDKRTTCSVAALTNNAFQTVKPGNFNKDFYDFAVSKGFFKE  
GSSVELKHFFAQDGNAIASDYDYYRYNLPTMCDIRQLLFVVEVVDKYFDCYDGGCIN  
ANQVIVNNLDKSAGFPFNKGKARLYYDSMSYEDQDALFAYTKRNVIPTITQMNLKYA  
ISAKNRARTVAGVSICSTMNRQFHQKLLKSIAATRGATVVIGTSKFYGGWHNMLKTV  
YSDVETPHLMGWDYPKCDRAMPNMLRIMASLVLARKHNTCCNLSHRFYRLANECAQVL  
SEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVR  
NLQHRLYECLYRN RDVDHEFVDEFYAYLRKHF SMMILSDDAVVCYNSNYAAQGLV ASI  
KNFKAVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMLVKQGDDYVYLPYPDPSRI  
LGAGCFVDDIVKTDGTLMIERFVSLAIDAYPLTKHPNQEYADVFLYLYQYIRKLHDEL  
TGHMLDMYSVMLTN DNTSRYWEPEFYEA MYTPHTVLQAVGACVLCNSQTSLRCGACIR  
RPFLCCKCCYDHVISTSHKLVL SVNPYVCNAPGCDVTDTQLYLGGMSYYCKSHKPPI  
SFPLCANGQVFGLYKNTCVGSDNVTDFNAIATCDWTNAGDYILANTCTERLKLFAAET  
LKATEETFKLSYGIATVREVLSRELHLSWEVGKPRPPLNRNYVFTGYRVTKNSKVQI  
GEYTFEKGDYGD AVVYRGTTYKLN VGDYFV L TSHTVMPLSAPTL VPQEHYVRITGLY  
PTLNISDEFSSNVANYQKVGMQKYSTLQGPPGTGKSHFAIGLALY YPSARI VYTACSH  
AAVDALCEKALKYLPIDKCSRIIPARARVECFDKFKVN STLEQYVFCTVN ALPET TAD  
IVVFDEISMATNYDLSVVNARLRAKHYVYIGDPAQLPAPRTLLTKGTLEPEYFNSVCR  
LMKTIGPDMFLGTCRRCPAEIVDTV SALVYDNKLKAHKDKSAQCFKMFYKGVI THDVS  
SAINRPQIGVVREFLTRNPAWRKAVFISP YNSQNAVASKILGLPTQTVDSSQGSEYDY  
VI FTQTTEAHSCNVNRFNVAITRAKIGILCIMS DRDLYDKLQFTSLEIPRRNVATLQ

FIGURE 33 (E)

AENVTGLFKDCSKI ITGLHPTQAPTHLSVDIKFKTEGLCVDIPGI PKDMTYRRLI SMM  
GFKMNYQVNNGYPNMFITREEAIRHVRAWIGFDVEGCHATRDAVGTNLPLQLGFSTGVN  
LVAVPTGYVDTENNTEFTRVNAKPPPGDQFKHLI PLMYKGLPWNVVRIKIVQMLSDTL  
KGLSDRVVFVLWAHGFELTSMKYFVKIGPERTCCLCDKRATCFSTSSDTYACWNHSVG  
FDYVYNPFMIDVQQWGFTGNLQSNHDQHCQVHGNAHVASCDAIMTRCLAVHECFVKRV  
DWSVEYPIIGDELRVNSACRKVQHMVVKSALLADKFPLHDIGNPKAIKCVPQAEEVW  
KFYDAQPCSDKAYKIEELFYSYATHHDKFTDGVCLFWNCNVDRYPANAIVCRFDTRVL  
SNLNLPGCDGGSLYVNKHAFHTPAFDKSAFTNLKQLPFFYYSDSPCESHGKQVVSDID  
YVPLKSATCITRCNLGGAVCRHHANEYRQYLDAYNMMISAGFSLWIYKQFDTYNLWNT  
FTRLQSLENVAYNVVNKGHF DGHAGEAPVSI INNAVYTKVDGIDVEIFENKTTLPVNV  
AFELWAKRNIKPVPEIKILNNLGVDIAANTVIWDYKREAPAHVSTIGVCTMTDIAKKP  
TESACSSLTVLFDGRVEGQVDLFRNARNGVLITEGSVKGLTPSKGP AQASVNGVTLIG  
ESVKTQFNYFKKVDGIIQQLPETYFTQSRDLEDFKPRSQMETFLELAMDEFIQRYKL  
EGYAFEHIVYGDFSHGQLGLHLMIGLAKRSQDSPLKLEDFI PMDSTVKNYFITDAQT  
GSSKCVCVIDLLLDDFVEIIKSQDLSVISKVVKVTIDYAEISFMLWCKDGHVETFYP  
KLQASQAWQPGVAMPNLYKMQRMLLEKCDLQNYGENAVIPKGIMMNVAKYTQLCQYLN  
TTLTLPYMRVIHFGAGSDKGVAPGTAVLRQWLPTGTLVDSLNDFVSDADSTLIG  
DCATVHTANKWDLI ISDMYDPRTKHVTKENDSKEGFFTYLCGFIKQKLALGGSIAVKI  
TEHSWNADLYKLMGHFSWWTA FVTNVNASSSEAFLIGANYLGKPKEQIDGYTMHANYI  
FWRNTNPIQLSSYSLFDMSKFPLKLRGTAVMSLKENQINDMIYSLLEKGRLIIRENNR  
VVVSSDILVNN

**FIGURE 34 (A)**

RVCVSAARLTPCGTGTSTDVVYRAFDIYNEKVAGFAKFLKTNC  
CRFQEKEDEGNLLDSYFVVKRHTMSNYQHEETIYNLVKDCPAVAHVDFFKFRVDGDMV  
PHISRQRLTKYTADLVYALRHFDEGNCDTLKEILVTYNCCDDYFNKKDWYDFVENP  
DILRVYANLGERVRQSLKTVQFC DAMRDAGIVGVLTLDNQDLNGNWYDFGDFVQVAP  
GCGVPIVDSYYSLMPILTLTRALAAESHMDADLA KPLIKWDLLKYDFTEERLCLFDR  
YFKYWDQTYHPNCINCLDDRCILHCANFNVLFSTVFPP TSFGPLVRKIFVDGVPFVVS  
TGYHFRELGVVHNQDVNLHSSRLSF KELLVYAADPAMHAASGNLLDKRTTCFSVAAL  
TNNVAFQTVKPGNFNKDFYDFAVSKGFFKEGSSVELKHFFF AQDGNA AISDYDYYRYN  
LPTMCDIRQLLFVVEVVDKYFDCYDGGCINANQVIVNNLDKSAGFPFNKGKARLYYD  
SMSYEDQDALFAYTKRNVIPTITQMNLYKAISAKNRARTVAGVSICSTMNRQFHQKL  
LKSIAATRGATVVIGTSKFYGGWHNMLKTVYSDVETPHLMGWDYPKCDRAMPNMLRIM  
ASLVLARKHNTCCNLSHRFYRLANECAQVLSEMVMCGGSLYVKPGGTSSGDATTAYAN  
SVFNICQAVTANVNALLSTDGNKIADKYVRNLQHRLYECLYRN RDVDHEFVDEFYAYL  
RKHF SMMI LSDDAVVCYNSNYAAQGLV ASIKNFKA VLYYQNNVFMSEAKCWTETDLTK  
GPHEFCSQHTMLVKQGDDYVYLPYPDPSRILGAGCFVDDIVKTDTLMIERFVSLAID  
AYPLTKHPNQEYADV FHLYLQYIRKLHDELTGHMLDMYSVMLTNDNTSRYWEPEFYEA  
MYTPHTVLQAVGACVLCNSQTSLRGACIRRPFLCKCCYDHVISTSHKLVL SVNPYV  
CNAPGCDVTDVTQLYLGGMSYYCKSHKPPISFPLCANGQVFG LYKNTCVGSDNVTDFN  
AIATCDWTNAGDYI LANTCTERLKLF AAETLKATEETFKLSYGIATVREVLSRELHL  
SWEVGKPRPPLNRNYVFTGYRVTNSKVQIGEYTFEKGDYGD AVVYRGTTTYKLNVD  
YFVLTSHVMPLSAPTLVPQEHYVRITGLYPTLNISDEFSSNVANYQKVGMQKYSTLQ  
GPPGTGKSHFAIGLALYYPSARIYV TACSHA AVDALCEKALKYLPIDKCSRIIPARAR  
VECFDKFKVNSTLEQYVFCTVNALPETTADI VVFDEISMATNYDLSVNVNARLRAKHYV  
YIGDPAQLPAPRTL LT KGTLEPEYFNSVCRLMKTIGPDMFLGTCRRCPAEIVDTVSAL  
VYDNKLKAHKDKSAQCFKMFYKGVI THDVSSAINRPQIGVVREFLTRNPAWRKAVFIS  
PYNSQNAVASKI LG LPTQ TDSSQGSEYDYVIFTQTTEAHSCNVNRFNVAITRAKIG

FIGURE 34 (B)

ILCIMSDRDLYDKLQFTSLEIPRRNVATLQAENVTLGKDCSKIITGLHPTQAPTHLS  
VDIKFKTEGLCVDIPGIPKDMTYRRLISMGMFKMNYQVNGYPNMFITREEAIRHVRAW  
IGFDVEGCHATRDAVGTNPLQLGFSTGVNLAVPTGYVDTENNTEFTRVNAKPPGD  
QFKHLIPLMYKGLPWNVVRIKIVQMLSDTLKGLSDRVVFVLWAHGFELTSMKYFVKIG  
PERTCCLCDKRATCFSTSSDTYACWNHSVGFDYVYNPFMIDVQQWGFTGNLQSNHDQH  
CQVHGNAHVASCDAIMTRCLAVHECFVKRVDWSVEYPIIGDELRVNSACRKVQHMVVK  
SALLADKF PVLHDIGNPKAIKCVPQAEVEWKFYDAQPCSDKAYKIEELFYSYATHHDK  
FTDGVLFWNCNVDRYPANAIVCRFDTRVLSNLNLPGCDGGSLYVNKHAFHTPAFDKS  
AFTNLKQLPFFYYSDSPCESHGKQVVSIDYVPLKSATCITRCNLGGAVCRHHANEYR  
QYLDAYNMMISAGFSLWIYKQFDTYNLWNTFTRLQSLENVAYNVVNKGHFDGHAGEAP  
VSIINNAVYTKVDGIDVEIFENKTLPVNVAFELWAKRNIKPVPEIKILNNLGVDIAA  
NTVIWDYKREAPAHVSTIGVCTMTDIAKKPTESACSSLTVLFDGRVEGQVDLFRNARN  
GVLITEGSVKGLTPSKGPAQASVNGVTLIGESVKTQFNYFKKVDGIIQQLPETYFTQS  
RDLEDfkPRSQMETDFLELAMDEFIQRYKLEGYAFEHIVYGDFSHGQLGGLHLMIGLA  
KRSQDSPLKLEDFIPMDSTVKNYFITDAQTGSSKCVCSVIDLLLDDFVEIIKSQDLSV  
ISKVVKVTIDYAEISFMLWCKDGHVETFYPKLQASQAWQPGVAMPNLYKMQRMLLEKC  
DLQNYGENAVIPKGIMMNVAKYTQLCQYLNTLTLAVPYNMRVIHFGAGSDKGVAPGTA  
VLRQWLPTGTLLVDSLNDVSDADSTLIGDCATVHTANKWDLIISDMYDPRTKHVTK  
ENDSKEGFFTYLCGFIKQKLALGGSIAVKITEHAWNADLYKLMGHFSWWTAFTNVNA  
SSSEAFLIGANYLGKPKEQIDGYTMHANYIFWRNTNPIQLSSYSLFDMSKFPLKLRGT  
AVMSLKENQINDMIYSLLEKGRLIIRENNRVVVSSDILVNN

FIGURE 35 (A)

MESLVLGVNEKTHVQLSLPVVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLPQEQQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGYIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRELNGGAVTRYVDNNFCGPDCYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKAFFDTFKGECPKFVFP  
LNSKVVKVIQPRVEKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTFCGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIVGDFHLNEEVAILLASFSASTSAFIDTIKSLDYKSFKTIVESCGN  
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIRSIFARTLDAANHSIPDLQRAA  
VTILDGISEQSLRVDAMVYTSDLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL  
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV  
NKALEMCIDQVTIAGAKLRSNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT  
FLEGDSHDTVLTSEEVVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLLEIKDKEQ  
YCALSPLLATNNVFRLKGGAPIKGVTGEDTVWEVQGYKNVRITFELDERVDKVLNE  
KCSVYTVESGTEVTEFACVVAEAVVKTLPVSDLLTNMGIDLDEWSVATFYLFDDAGE  
ENFSSRMYCSFYPPDEEEEDDAECEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR  
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTNDNAIKCVDIVKEAQSA  
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL  
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQLQCVQQT  
VRTQVYIAVNDKALYEQVVMMDYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV  
KPKIKACIDEVTTLEETKFLTNKLLLFA DINGKLYHDSQNMLRGEDMSFLEKDAPYM  
VGDVITSGDITCVVIPSKKAGGTTEMLSRALKKVPDEYITTYPGQGCAGYTLLEEAKT  
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI  
QRKYKGIKIQEGIVDYGVRFYYTSKEPVASIITKLNSLNEPLVTMPIGYVTHGFNLE  
EAARCMRSLKAPAVVSVSSPD AVTTYNGYL TSSSKTSEEHF VETVSLAGSYRDWSYSG

**FIGURE 35 (B)**

QRTELGVFALKRGDKIVYHTLESPVEFHLDGEVLSLDKLKSLLSLREVKTIVFVVTV  
NTNLHTQLVDMMSMTYQQQFGPTYLDGADVTKIKPHVNHEGKTFVLPSSDTRLSEAFE  
YYHTLDESFLGRYMSALNHTKKWKFQVGGLTSIKWADNNCYLSSVLLALQQLEVKFN  
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHLLQHANLESAKRVLN  
VVCKHCGQKTTLTGVEAVMYMGTLSYDNLKTGVSIPCVCGRDATQYLVQQESSFVMM  
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPTD  
VFYKETSYTTIKPVSYKLDGVTYTEIEPKLDGYKKDNAYYTEQPIDLVPTQPLPNA  
SFDFNFKLTCSNTKFADDLNQMTGFTKPASRELSVTFFPDNGDVVAIDYRHYSASFKK  
GAKLLHKPIVWHINQATTKTFKPNTWCLRCLWSTKPVDTNSFEVLAVEDTQGMDNL  
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVGNVILKPSDEGVKVTQELGHEDLMA  
AYVENTSITIKKPNELSALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN  
CAKRLAQRFNFNNYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIAKNSVKSVALCLDA  
GINYVKSPKFSKLFITIAMWLLLLSICLGSPLICVTAAGVLLSNFGAPSYCNGVRELYL  
NSSNVTTMDFCEGSFPCSICLSGLDSLDSPALETIQVTISSYKLDLTIGLAAEWVL  
AYMLFTKFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF  
ASFYYIWKSYVHIMDGCTSSTCMCYKRNRATRVECTTIVNGMKRSFYVYANGGRGFC  
KTHNWNCNCDFCTGSTFISDEVARDLSQFKRPINPTDQSSYIVDSAVKNGALHL  
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPININVFDGKSKCDESASKSASVYY  
SQLMCQPILLLQALVSDVGDSTEVSVMFDAYVDTFSATFSVPMEKLKALVATAHSE  
LAKGVALDGVLSTFVSAARQGVVDTDVDTKDVIIECLKLSHSDLEVTGDSCNNFMLTY  
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMMSLSEQLRKQIRSAAKK  
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKMLKATLLCVLAALVCYIVMPV  
HTLSIHGYTNEIIIGYKAIQDGVTRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC  
PVVAAIITREIGFIVPGLPGTVLRAINGDFLHFLPRVFSAVGNICYTPSKLIEYSDFA  
TSACVLAECTIFKDAMGKPVPCYDTNLLEGSISYSSELRPDTRYVLMGSIIQFPNT  
YLEGSVRVVTTFDAEYCRHGTGERSEVGICLSTSGRWVLNNEHYRALSGVFCGVDMN

FIGURE 35 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFRRAFGEYNHVVAANAL  
LFLMSFTILCLAPAYSFLPGVYSFYLYLTFTNDVSFLAHLQWFAMFSPIVPFWIT  
AIYVFCISLKHCHWFFNNYLRKRVMFNGVTFSTFEEAALCTFLNKEMYLKLRSETLL  
PLTQYNRYLALYNKYKYFSGALDTTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI  
TSAVLQSGFRKMAFPSKGVEGCMVQVTCGTTLNGLWLDDTVYCPRHVICTAEDMLNP  
NYEDLLIRKSNSHSLVQAGNVQLRVIGHSMQNCLRLKVDTSNPKTPKYKFVRIQPGQ  
TFSVLACYNGSPSGVYQCAMPNHTIKGSFLNGSCGSGFNIDYDCVSFCYMHHMELP  
TGVHAGTDLEGKFYGPFDVDRQTAQAAGTDTTITLNVLAWLAAVINGDRWFLNRFTTT  
LNDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMAALKELLQNGMNGRTILGS  
TILEDEFTPFDVVRQCSGVTQGKFKKIVKGTHHWMLLTFLTSLLILVQSTQWSLFFF  
VYENAFLPFTLGIMAIAACAMLLVKHKHAFLCLFLPSLATVAYFNMVYMPASWVMRI  
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVTLMNVITLVYKV  
YYGNALDQAIISMWALVISVTSNYSGVVTTIMFLARAIVFVCVEYYPLLFITGNTLQCI  
MLVYCFGLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSTQEFRYMSQGLLPPKSSIDA  
FKLNIKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH  
NDILLAKDTTEAFEKMSLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS  
YAAYATAQEAYEQAVANGDSEVVLKKLKSLNVAKSEFDRDAAMQRKLEKMAQAMTQ  
MYKQARSEDKRAKVTSAMQTMLFTMLRKLDNDALNNIINNARDGCVPLNIIPLTAAK  
LMVVVPDYGTYKNTCDGNTFTYASALWEIQQVVDADSKIVQLSEINMDNSPNLAWPLI  
VTALRANSAVKLQNNELSPVALRQMSCAAGTTQACTDDNALAYYNNSKGGRFVLALL  
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGNNLNRGMV  
GSLAATVRLQAGNATEVPANSTVLSFCAFADPAKAYKDYLASGGQPITNCVKMLCTH  
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND  
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFLNRVCVSAARLTPCGTG  
TSTDVVYRAFDIYNEKVAGFAKFLKTNCRFQEKEDEEGNLDSYFVVKRHTMSNYQHE  
ETIYNLVKDCPAVAVHDFFKFRVDGDMVPHISRQRLTKYTADLVYALRHFDEGNCDT

**FIGURE 35 (D)**

LKEILVTYNCCDDDYFNKKDWYDFVENPDILRVYANLGERVRQSLLKTVQFC DAMRDA  
GIVGVLTLDNQDLNGNWYDFGDFVQVAPCGVPIVDSYYSLMPILTTLTRALAAESHM  
DADLAKPLIKWDLLKYDFTEERLCLFDTRYFKYWDQTYHPNCINCLDDRCILHCANFNV  
LFSTVFPPSTSFGPLVRKIFVDGVPVVSTGYHFRELGVHNQDVNLHSSRLSF KELLV  
YAADPAMHAASGNLLLKDRTTCSVAALTNNVAFQTVKPGNFNKDFYDFAVSKGFFKE  
GSSVELKHFFFAQDGNAIASDYDYYRYNLPTMCDIRQLLFVVEVVDKYFDCYDGGCIN  
ANQVIVNNLDKSAGFPFNKGKARLYYDSMSYEDQDALFAYTKRNVIPTITQMNLKYA  
ISAKNRARTVAGVSICSTMNRQFHQKLLKSIAATRGATVVIGTSKFYGGWHNMLKTV  
YSDVETPHLMGWDYPKCDRAMPNMLRIMASLVLARKHNTCCNLSHRFYRLANECAQVL  
SEMVMCGGSLYVKPGGTSSGDATTAYANSVNICQAVTANVNALLSTDGNIADKYVR  
NLQHRLYECLYRNRDVDHEFVDEFYAYLRKHF SMMILSDDAVVCYNSNYAAQGLVASI  
KNFKAVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMLVKQGDDYVYLPPDPDSRI  
LGAGCFVDDIVKTDTLMIERFVSLAIDAYPLTKHPNQEYADVHLYLQYIRKLHDEL  
TGHMLDMYSVMLTN DNTSRYWEPEFYEA MYTPHTVLQAVGACVLCNSQTSLRCGACIR  
RPFLCCKCCYDHVI STSHKLVL SVNPYVCNAPGCDVTDTVQLYLGGM SYCKSHKPPI  
SFPLCANGQVFG LYKNTCVGSDNVTDFNAIATCDWTNAGDYILANTCTERLKLFAAET  
LKATEETFKLSYGIATVREVLSRELHLSWEVGKPRPPLNRNYVFTGYRVTKNSKVQI  
GEYTFEKGDYGD AVVYRGTTYKLN VGDYFV L TSHTVMPLSAPTL VPQEHYVRITGLY  
PTLNISDEFSSNVANYQKVG MQKYSTLQGPPGTGKSHFAIGL ALYYPSARI VYTACSH  
AAVDALCEKALKYLPIDKCSRIIPARARVEC FD KFKVN STLEQYVFCTVN ALPETTAD  
IVVFDEISMATNYDLSVNVNARLRAKHYVYIGDPAQLPAPRTLLKG TLEPEYFNSVCR  
LMKTIGPDMFLGTCCRCPAEIVDTVSALVYDNKLKAHKEKSAQCFKMFYKGVI THDVS  
SAINRPQIGVVREFLTRNP AWRKAVFISP YNSQNAVASKI LG LPTQ TVDSSQGSEYDY  
VI FTQTT EAHSCNVNRFNVAITRAKIGILCIMS DRDLYDKLQFTSLEIPRRNVATLQ  
AENVTGLFKDCSKIITGLHPTQAPTHLSVDIKFKTEGLCVDIPGIPKDMTYRRLISMM  
GFKM NYQVNGYPNMFITREEAIRHVR RAWIGFDVEGCHATRDAVGTNLPLQLGFSTGVN

FIGURE 35 (E)

LVAVPTGYVDTENNTEFTRVNAKPPPGDQFKHLIPLMYKGLPWNVVRIKIVQMLSDTL  
KGLSDRVVFVLWAHGFELTSMKYFVKIGPERTCCLCDKRATCFSTSSDTYACWNHSVG  
FDYVYNPFMIDVQQWGFTGNLQSNHDQHCQVHGNAHVASCDAIMTRCLAVHECFVKRV  
DWSVEYPIIGDELRVNSACRKVQHMVVKSALLADKFVPLHDIGNPKAIKCVPQAEVEW  
KFYDAQPCSDKAYKIEELFYSYATHHDKFTDGVCFLFWNCNDRYPANAIVCRFDTRVL  
SNLNLPGCDGGSLYVNKHAFHTPAFDKSAFTNLKQLPFFYYSDSPCESHGKQVVSDID  
YVPLKSATCITRCNLGGAVCRHHANEYRQYLDAYNMMISAGFSLWIYKQFDTYNLWNT  
FTRLQSLENVAYNVVNKGHF DGHAGEAPVSIINNAVYTKVDGIDVEIFENKTTLPVNV  
AFELWAKRNIKPVPEIKILNNLGVDIAANTVIWDYKREAPAHVSTIGVCTMTDIAKKP  
TESACSSLTVLFDGRVEGVQVDFRNARNGVLITEGSVKGLTPSKGPQAQASVNGVTLIG  
ESVKTQFNYFKKVDGIIQQLPETYFTQSRDLEDKPRSQMETFLELAMDEFIQRYKL  
EGYAFEHIVYGDFSHGQLGLHLMIGLAKRSQDSPLKLEDFIPMDSTVKNYFITDAQT  
GSSKCVCVIDLLLDDFVEIIKSQDLSVISKVVKVTIDYAEISFMLWCKDGHVETFYP  
KLQASQAWQPGVAMPNLYKMQRMLLEKCDLQNYGENAVIPKGIMMNVAKYTQLCQYLN  
TTLAVPYNMRFVIHFGAGSDKGVAPGTAVLRQWLPTGTLVDSLNDFVSDADSTLIG  
DCATVHTANKWDLIISDMYDPRTKHVTKEKSKEGFFTYLCGFIKQKLALGGSIAVKI  
TEHSWNADLYKLMGHFSWWTAFTVNViNASSEAFLIGANYLGKPKEQIDGYTMHANYI  
FWRNTNPQLSSYSLFDMSKFPLKLRGTAVMSLKENQINDMIYSLLEKGRLIIIRENNR  
VVVSSDILVNN

**FIGURE 36**

KSFKTIVESCGNYKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQA  
AGVIRSIFARTLDAANHSIPDLQRAAVTILDGISEQSLRLVDAMVYTS DLLTNSVIIM  
AYVTGGLVQQTSQWLSNLLGTTVEKLRPIFEWIEAKLSAGVEFLKDAWEILKFLITGV  
FDIVKGQIQVASDNIKDCVKCFIDVVNKALEMCIDQVTIAGAKLRSLNLEVFIAQSK  
GLYRQCIRGKEQLQLLMPLKAPKEVTFLEGDSHDTVLTSEEVVLKNGELEALETPVDS  
FTNGAIVGTPVCVNGLMLLEIKDKEQYCALS PGLLATNNVFR LKGGA PIKGVTFGEDT  
VWEVQGYKNVRITFELDERVDKVLNEKCSVYTVESGTEVTEFACVVAEAVVKTLPVS  
DLLTNMGIDLDEWSVATFYLFDAGEENFSSRMYCSFYPPDEEEEDDAECEEEEIDET  
CEHEYGTEDDYQGLPLEFGASAETVRVEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVN  
QFTGYLKLTDNVAIKCVDTVKEAQSANPMVI VNAANIHLKHGGVAGALNKATNGAMQ  
KESDDYIKLNGPLTVGGSCLLSGHNLAKKCLHVVGPNLNAGEDIQLLKAAYENFNSQD  
ILLAPLLSAGIFGAKPLQSLQVCVQTVRTQVYIAVNDKALYEQVVM DYLDNLKPRVEA  
PKQEEPPNTEDSKTEEKSVVQKPVDVKPKIKACIDEVTTLEETKFLTNKL LLFADIN  
GKLYHDSQNMLRGEDMSFLEEDAPYMVGDVITS GDITCVVIPSKKAGGTTEMLS RALK  
KVPVDEYITTYPGQGCAGY TLEEAKTALKCKSAFYVLPSEAPNAKEEILGTVSWNLR  
EMLAHAAEARKLMPICMDVRAIMATIQRKYKGVKIQEGIVDYGVRF F YTSKEPVASI  
ITKLNSLNEPLVTMPIGYVTHGFNLEEAARCMRSLKAPAVSVSSPDAVTTYNGY LTS  
SSKTSEEHFVETVSLAGSYRDWSYSQQRTELGV EFLKRGDKIVYHTLES PVEFHLDGE  
VLSLDKLKSLLSLREVKTIVF TTDNTNLHTQLVDMMSMTY GQQFGPTYLDGADVTKI  
KPHVNHEGKTFFVLP SDDTLRSEAF EYYHTLDESFLGRYMSALNHTKKWF PQVGGLT  
SIKWADNNCYLSSVLLALQQLEVKF NAPALQE

**FIGURE 37**

KSFKTIVESCGNYKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQA  
AGVIRSIFARTLDAANHSIPDLQRAAVTILDGISEQSLRLVDAMVYTS DLLTNSVIIM  
AYVTGGLVQQTSQWLSNLLGTTVEKLPIFEWIEAKLSAGVEFLKDAWEILKFLITGV  
FDIVKGQIQVASDNIKDCVKCFIDVVNKALEMCIDQVTIAGAKLRSLNLEVFIAQSK  
GLYRQCIRGKEQLQLLMPLKAPKEVTFLEGDSHDTVLTSEEVVLKNGELEALETPVDS  
FTNGAIVGTPVCVNGLMLLEIKDKEQYCALSPLLATNNVFRKGAPIKGVTFGEDT  
VWEVQGYKNVRITFELDERVDKVLNEKCSVYTVESGTEVTEFACVVAEAVVKTLPVS  
DLLTNMGIDLDEWSVATFYLFDDAGEENFSSRMYCSFYPPDEEEEDDAECEEEEIDET  
CEHEYGTEDDYQGLPLEFGASAETVRVEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVN  
QFTGYLKLTDNVAIKCVDTVKEAQSANPMIVNAANIHLKHGGVAGALNKATNGAMQ  
KESDDYIKLNGPLTVGGSCLLSGHNLAKKCLHVVGPNLNAGEDIQLLKAAYENFNSQD  
ILLAPLLSAGIFGAKPLQSLQVCVQRTQVYIAVNDKALYEQVVMMDYLDNLKPRVEA  
PKQEEPPNTEDSKTEEKSVVQKPVDVKPKIKACIDEVTTLEETKFLTNKLLL FADIN  
GKLYHDSQNMLRGEDMSFLEEDAPYMVGDVITSGDITCVVIPSKKAGGTTEMLSRALK  
KVPVDEYITTYPGQGCAGYTLLEEAKTALKCKSAFYVLPSEAPNAKEEILGTVSWNLR  
EMLAHAEARKLMPICMDVRAIMATIQRKYKGVKIQEGIVDYGVRFYTSKEPVASI  
ITKLNSLNEPLVTMPIGYVTHGFNLEEAARCMRSLKAPAVSVSSPDAVTTYNGY LTS  
SSKTSEEHFVETVSLAGSYRDWSYSQRTTELGVFLRGDKIVYHTLES PVEFHLDGE  
VLSLDKLKSLLSLREVKTIVFTTDNTNLHTQLVDMMSMTYQQQFGPTYLDGADVTKI  
KPHVNHEGKTFFVLPSSDTLRSEAFEYYHTLDESFLGRYMSALNHTKKWF PQVGGLT  
SIKWADNNCYLSSVLLALQQLEVKFNAPALQE

**FIGURE 38**

MESLVLGVNEKTHVQLSLPVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLQPQEQQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRLNGVVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSCEHQTPFEIKSAKKFDTFKGECPKFVFP  
LNSKVVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTRCFGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESCG

**FIGURE 39**

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRLNGGVVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSCEHQTPEIKAFFKGECPKFVFP  
LNSKVVKVIQPRVEKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTRCFGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIVGDFHLNEEVAILLASFSASTSAFIDTIKSLSDYKSFKTIVESCG

**FIGURE 40**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNNGGRNGARPQKQRPPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYLGTPPEASLPYGANKEGIVVWATEGALNTPKDHIGHTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 41

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPD  
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFDNPVIPFKDGIYFAATEKSNVVRG WV  
FGSTMNNKSQS VII INNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMIFDNAFNCT  
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFPLYVYKGYQPIDVVRDLPSGFNTLKP  
IFKLPLGINITNFRAILTAFSPAQDTWGTSAAYFVGYLKPTTFMLKYDENGTTDAV  
DCSQNPLAELKCSVKSFEIDKGIYQTSNFRVVPSGDVVRFPNITNLCPFGEVFNATKF  
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKG D  
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTRNIDATSTGNYNKYRYLRHGKL RP  
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTGIGYQPYRVVVL SFELLNAPA  
TVCGPLKSTDLIKNQCVNFNFNGLTGTGVLT PSSKRFQPFQQFGRDVSDFTD SVRDPK  
TSEILDISPCSFGGVSVITPGTNASSEAVLYQDVNCTDVSTA I HADQLTPAWRIYST  
GNNVFQTQAGCLIGAEHVDTSYECDIPIGAGICASYHTV SLLRSTS QKSIVAYTMSLG  
ADSSIAYSNN TIAI PTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS  
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLK YFGGFNFSQILPDPLKPTKRS  
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLL TDDMIAAYT  
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS  
QIQESLTTSTALGKLQDVVNQNAQALNTLVQLSSNFGAISSVLNDILSR LDKVEAE  
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVD FCGKG YH  
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAI CHECKAYFPREGVFVFNGTSWFITQ  
RNFFSPQI ITTDNTFVSGNCVVIGIINNTVYDPLQPELDSFKEELDKYFKNHTSPDV  
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA  
GLIAIVMV TILLCCMTSCSCLKGACSCGSCCKFDEDDSEPV LKG VKLHYT